



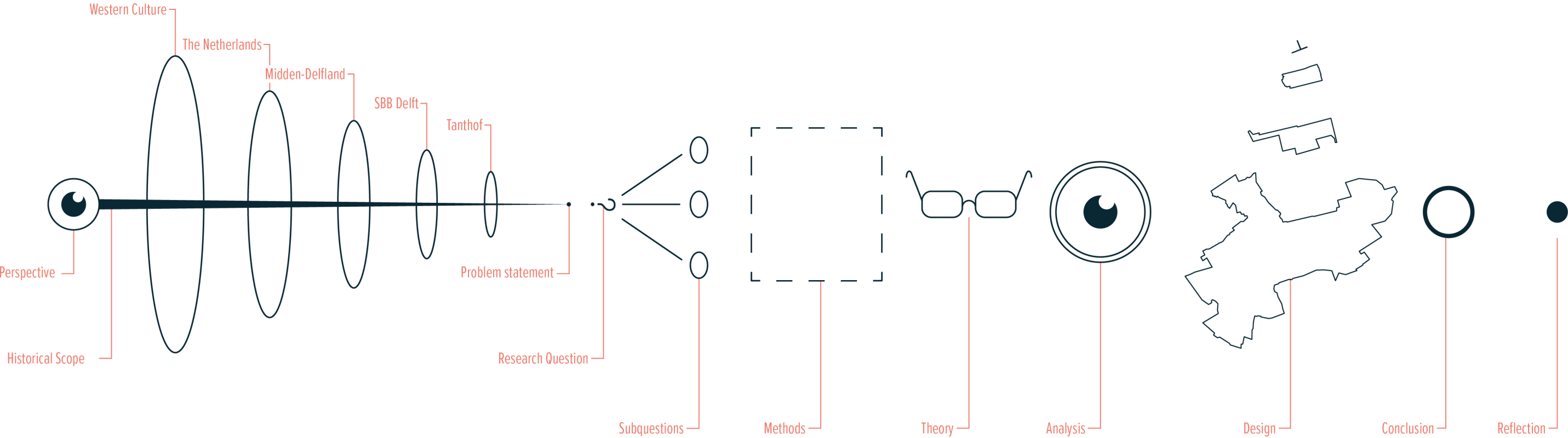
GARDENS OF RESPONSIBILITY

Urban Ecology & Ecocities
P5 22-09-22

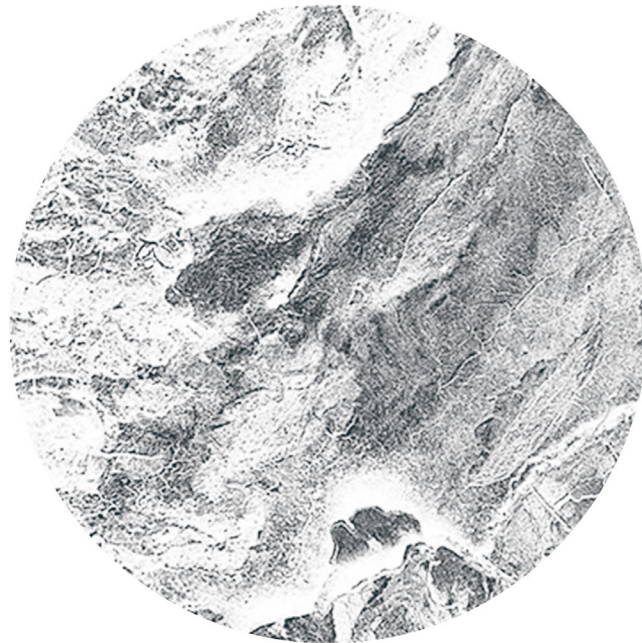
Marloes Willemsen
Nr. 4494725

Nico Tillie
Rients Dijkstra
Andrej Radman

Content



Human-Nature Dualism

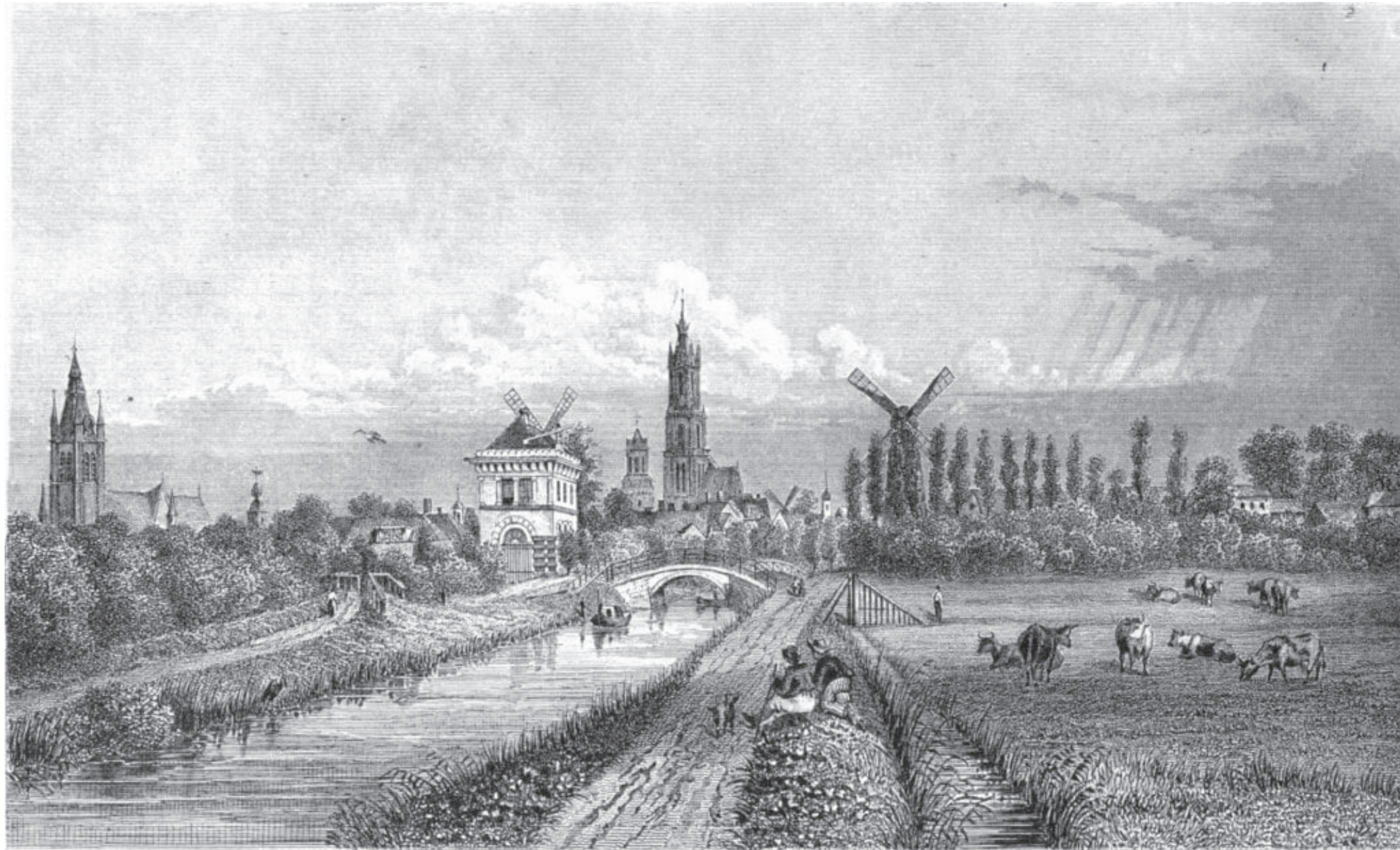


Human-Nature Dualism | Protection



George Andries Roth, *Watersnood te Kessel* 1855. Rijksmuseum Amsterdam.
source: <https://www.brabantcultureel.nl/>

Human-Nature Dualism | Profit



*Het Koninkrijk der Nederlanden voorgesteld in eene Reeks van 136 naar de Natuur geteekende schilderachtige Gezigten, 1858 by Johannes Leonardus Terwen.
source: www.indebuurt.nl/delft*

Human-Nature Dualism | Elimination



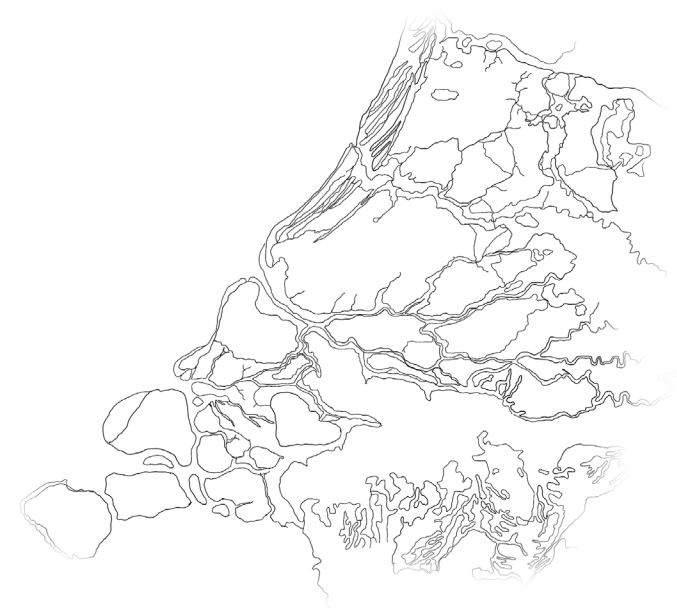
*Toekomstvisie voor een treinstation op de beursbrug in Rotterdam, F.J. Becker, 1864.
source: www.rijksmuseum.nl*

Human-Nature Dualism | Urban lifestyle



Paul and Margaret, 2009 by David Hockney
source: www.hockney.com

Human-Nature Dualism | Impact on nature



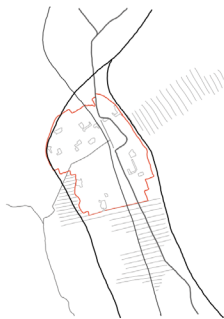
Fighting nature



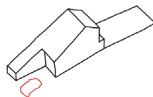
Profit from nature



Erasing nature



Restricting nature



Ignoring nature

Today

Nature as profit

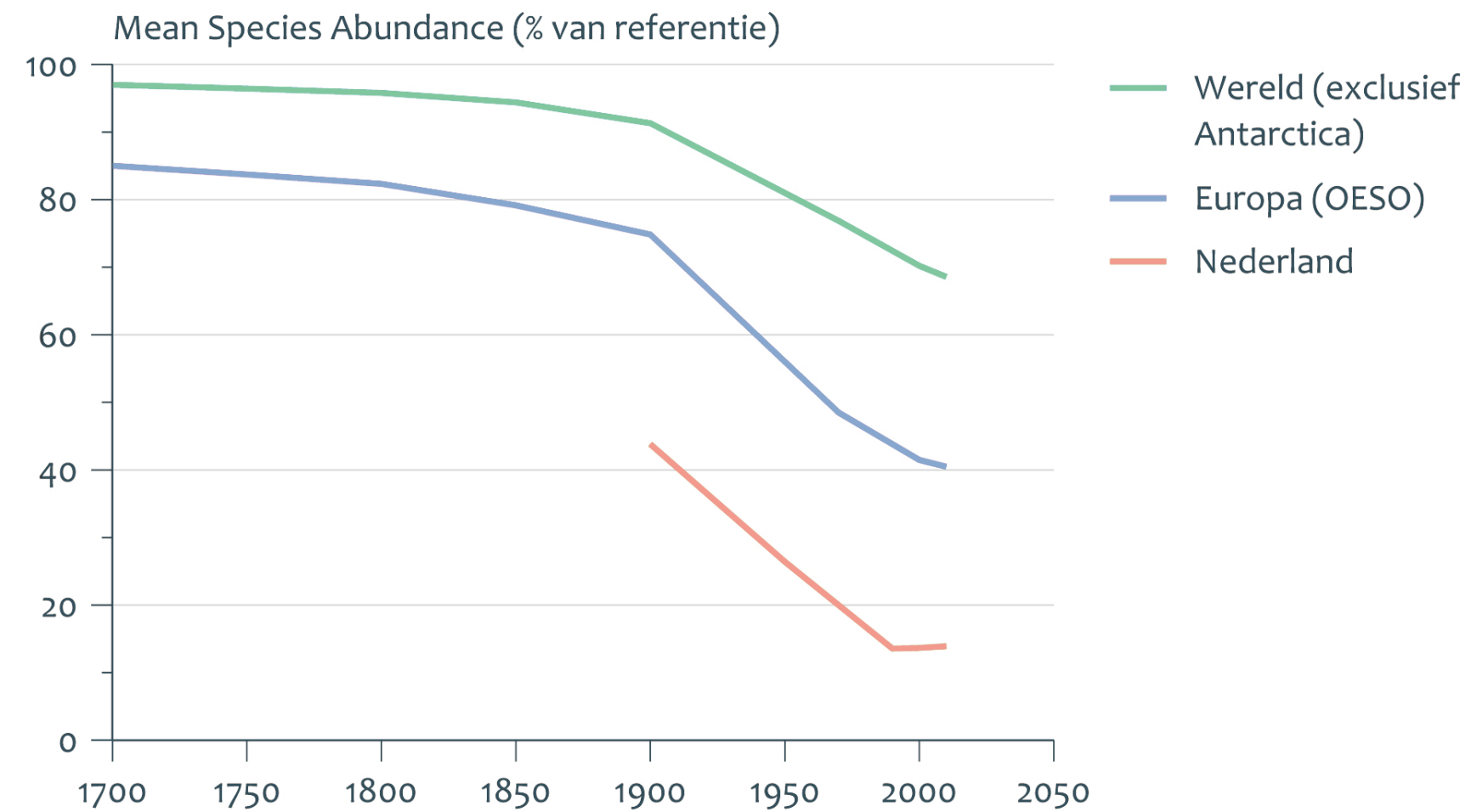


Brueghel the Elder and Pieter Paul Rubens, c. 1615
source: www.wikipedia.com

Nature as profit | Globalization

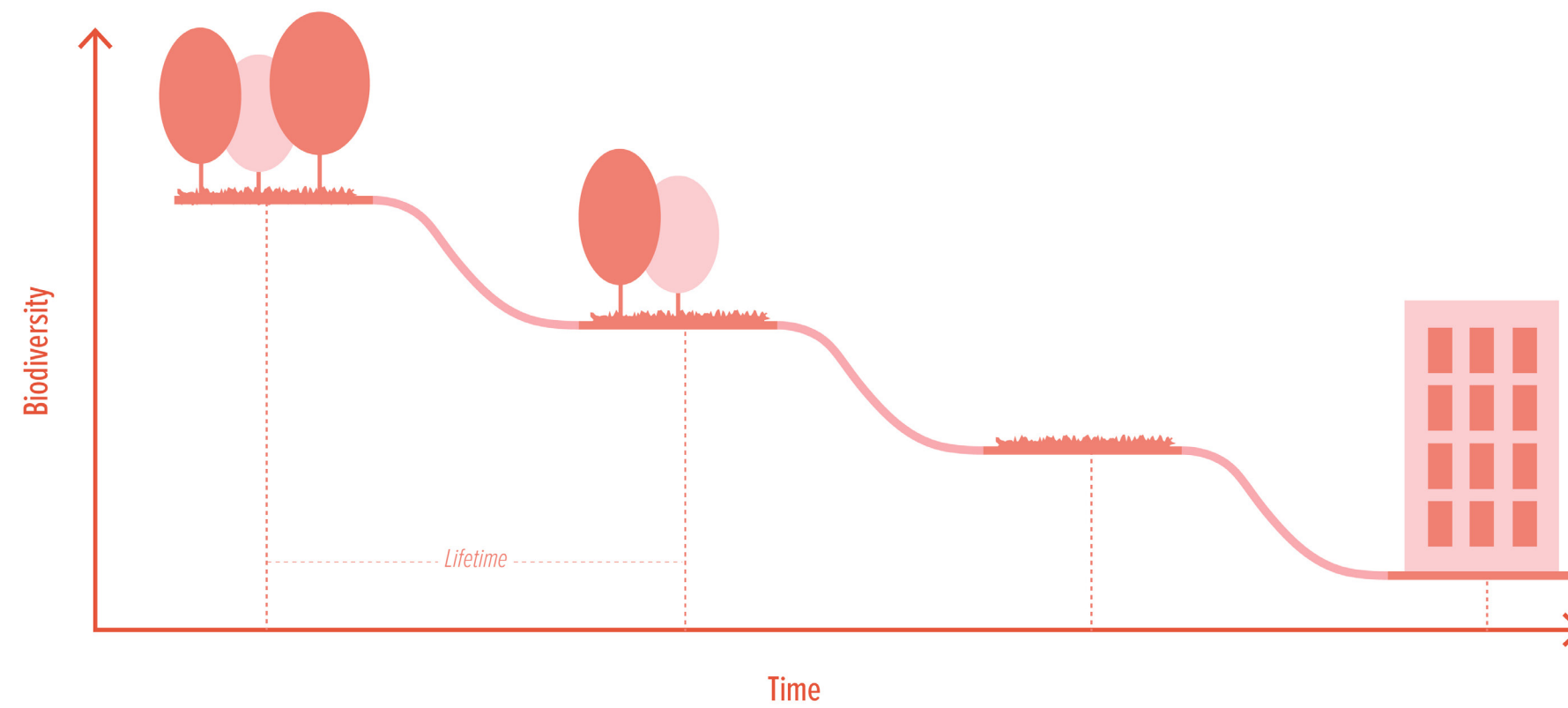


Nature as profit | The Great decline

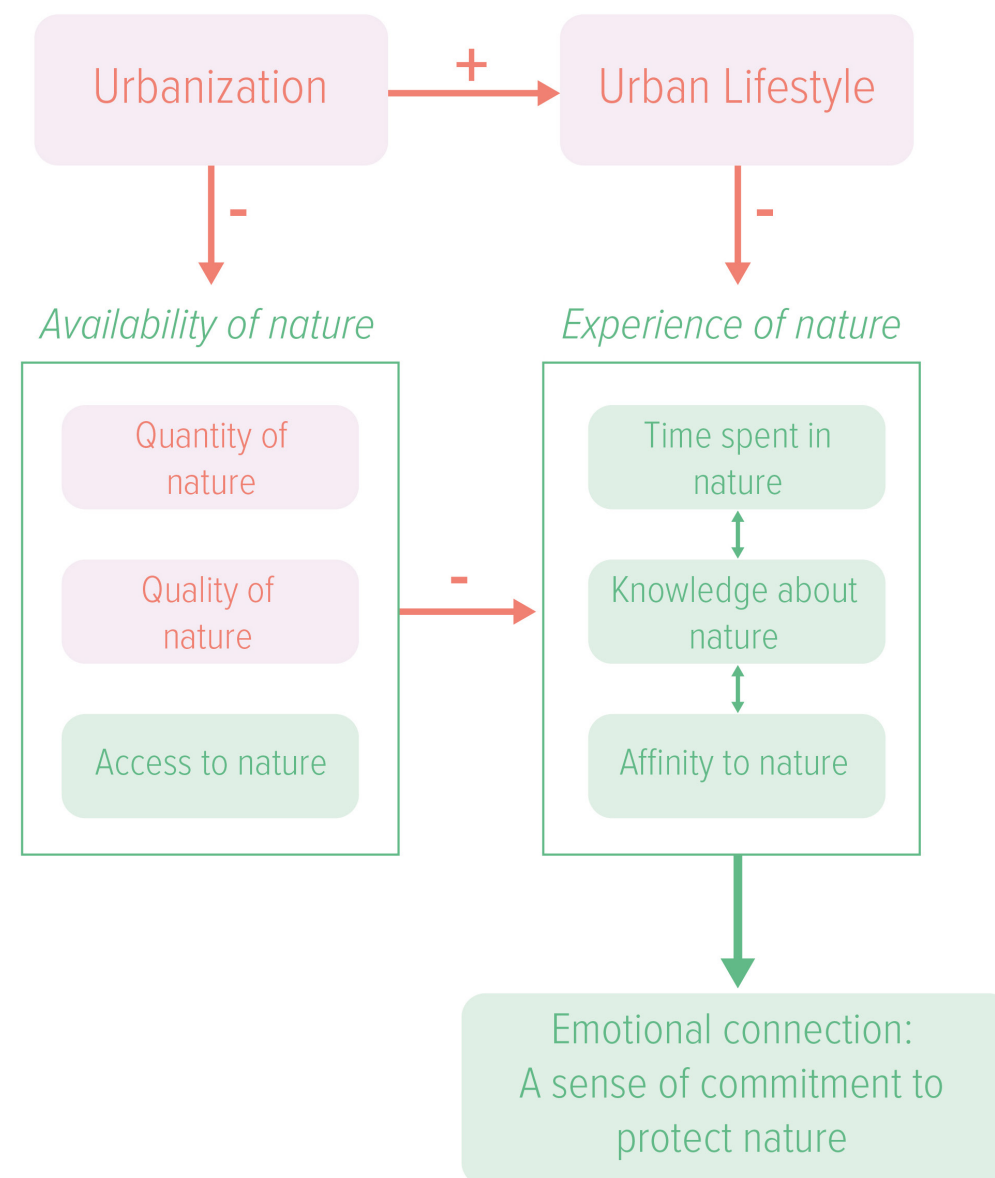


Between 1900 and 2013, there has been a biodiversity loss from 43% to 17% in the Netherlands, Planbureau voor de Leefomgeving, 2013.

Extinction of experience | Shifting baseline



Extinction of experience



Model of how nature-based science can reduce the extinction of experience. (Karouzos, 2018, p406)

Green Metropolis

Connecting city with Staatsbosbeheer

Attractive green routes

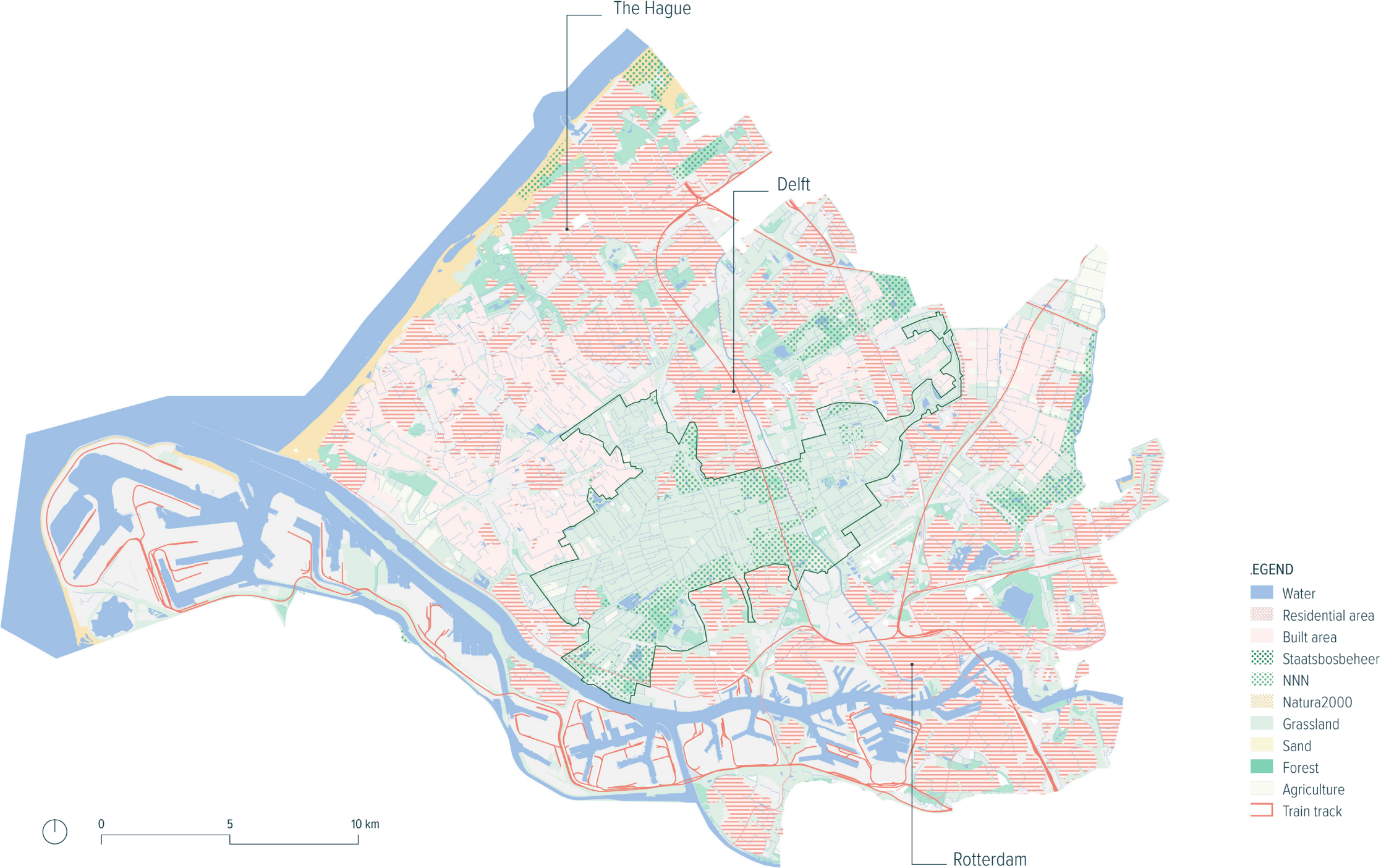
Motivating citizens to discover nature

LEGEND

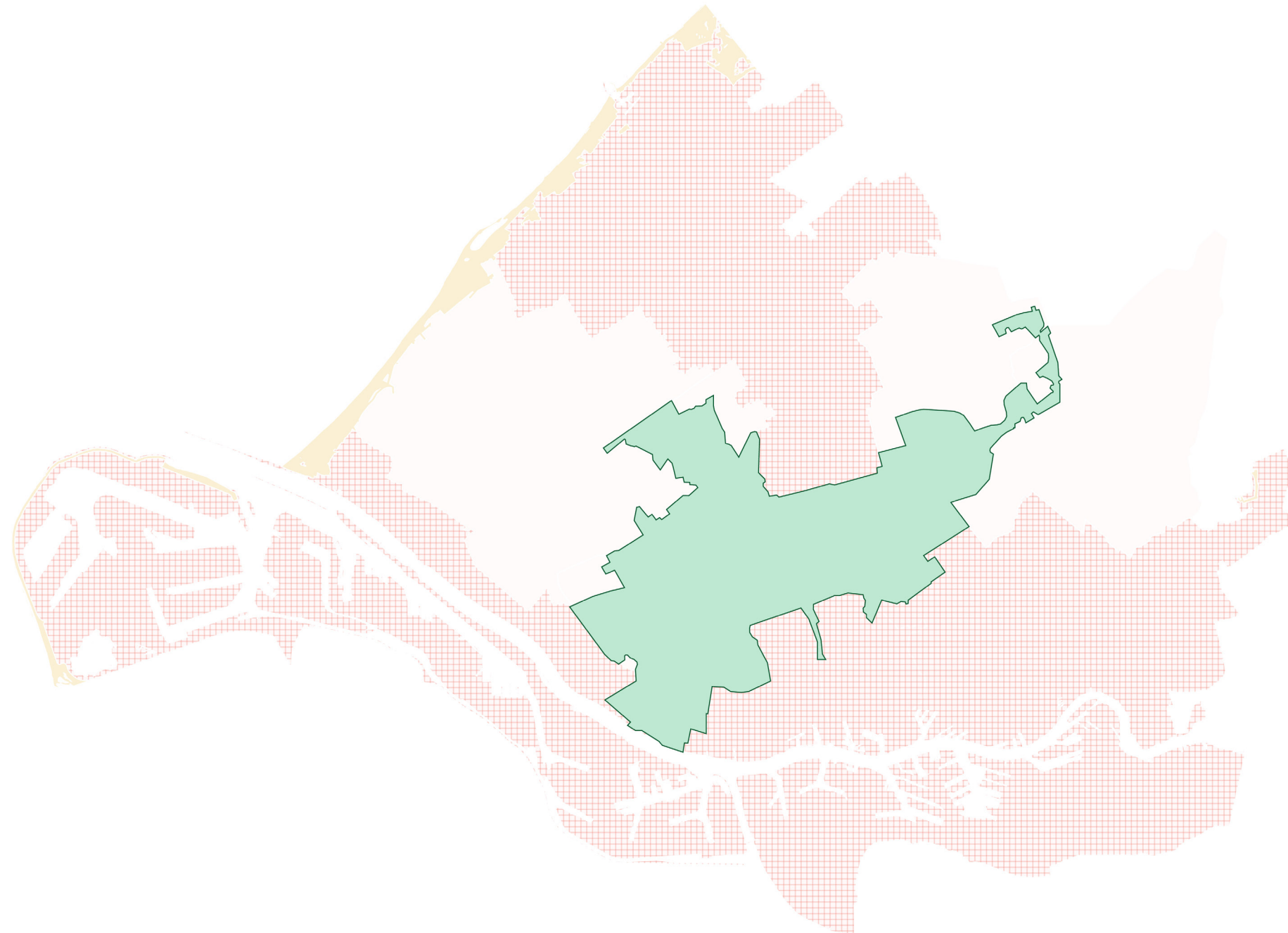
- Water
- Residential area
- Horticulture
- Staatsbosbeheer
- NNN
- Natura2000
- Agriculture
- Sand
- Forest
- Industry
- Train track



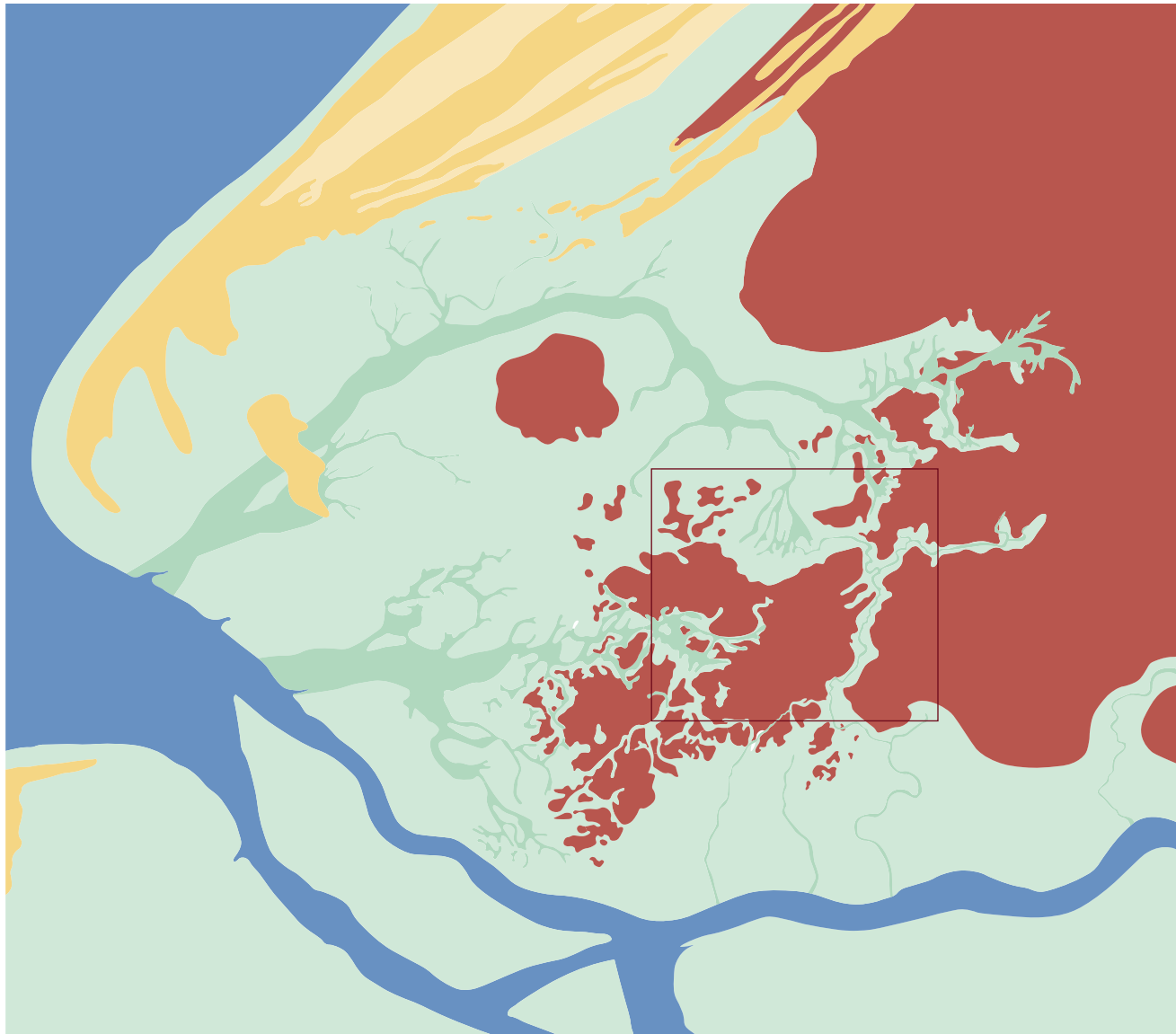
Metropolitan region | Rotterdam-The Hague



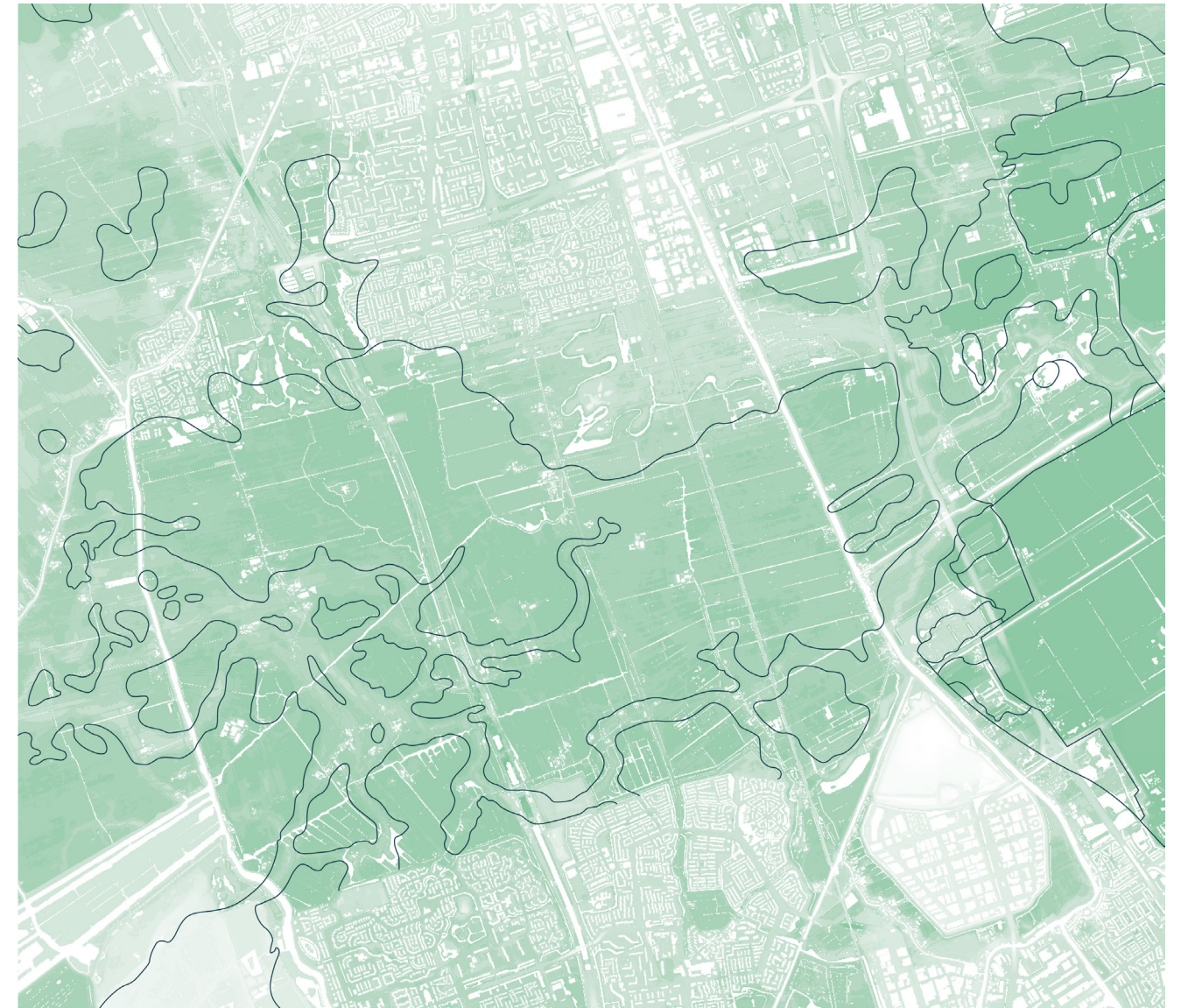
Metropolitan region | Midden-Delfland



Midden-Delfland | Original Landscape



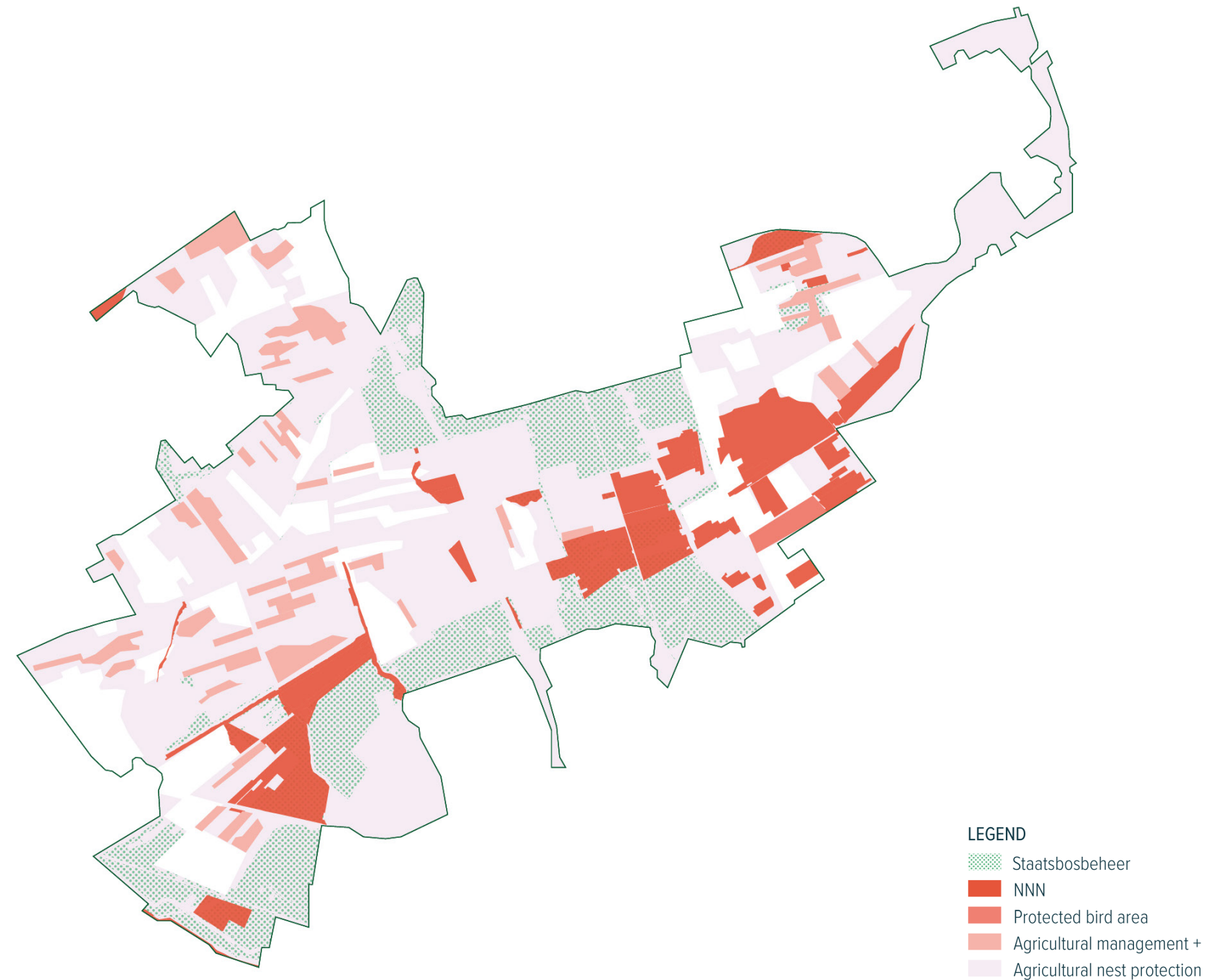
Maasmond gebied 500 BC, Atlas van de Schie (2016)



Midden-Delfland | Cultivated landscape

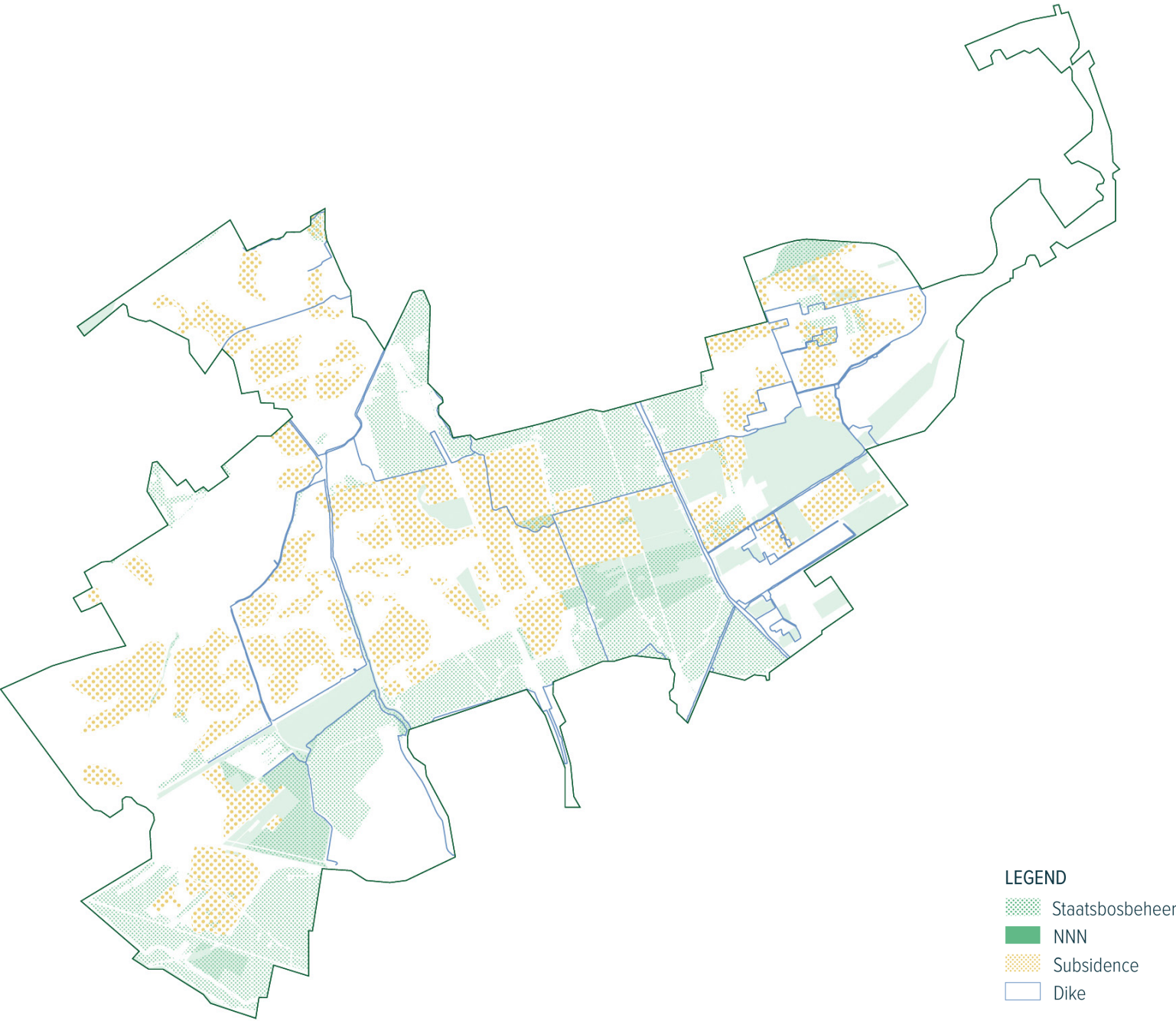


Midden-Delfland | Fragmentation

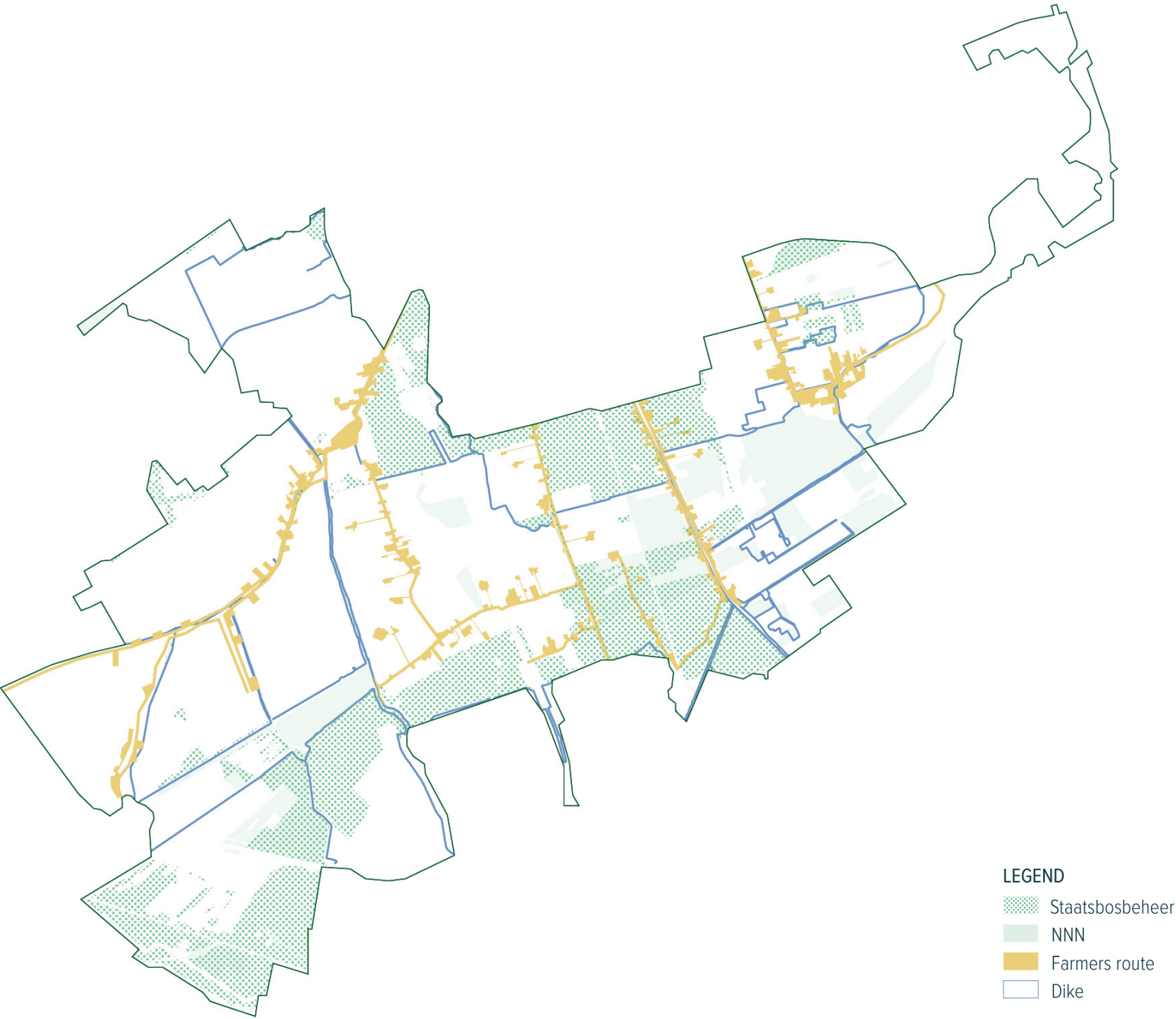


Biodiversiteit - Kenmerken en kwaliteiten, (Gemeente Delft, 2021)

Midden-Delfland | Subsidence



Midden-Delfland | Unreached Potential



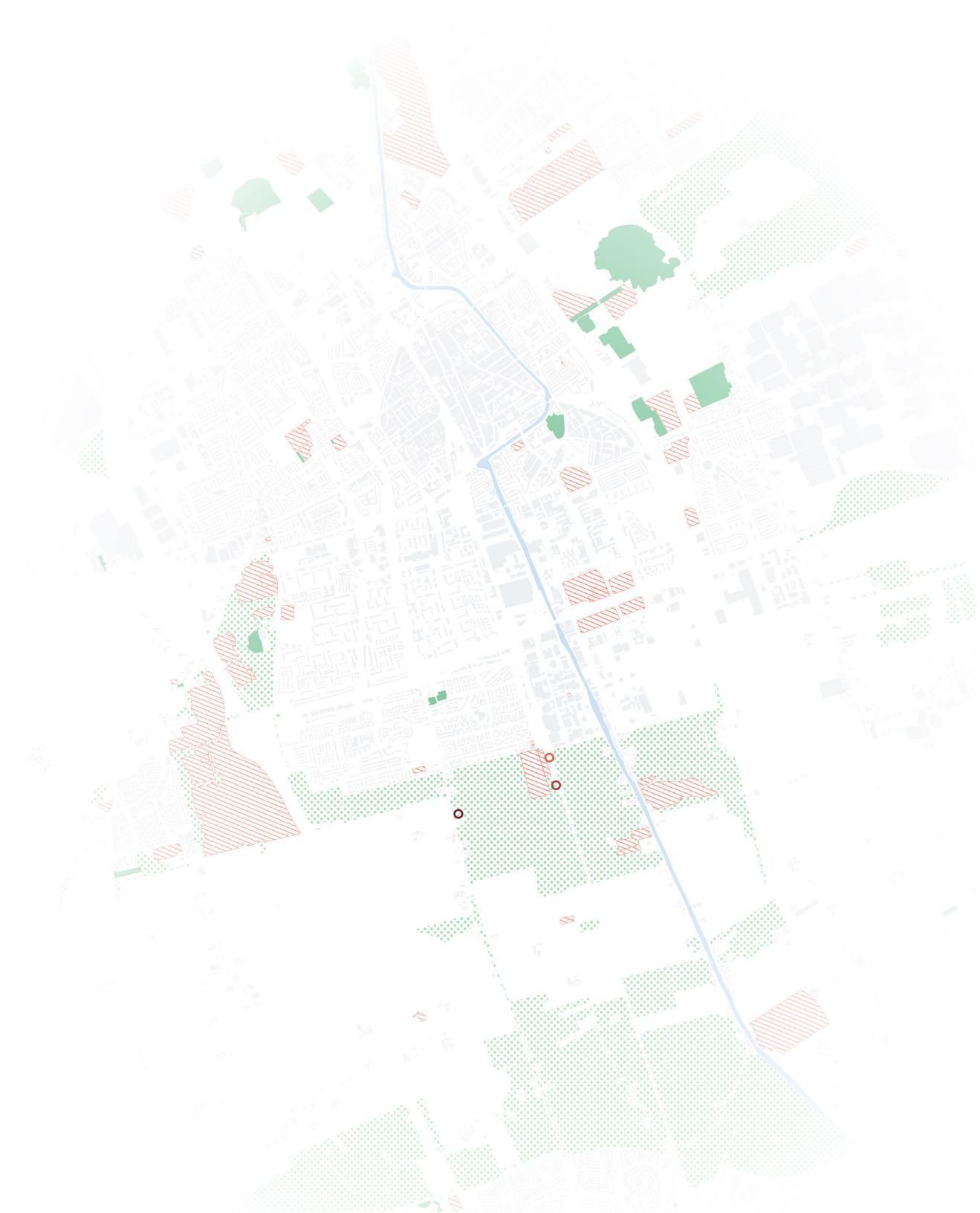
Delft



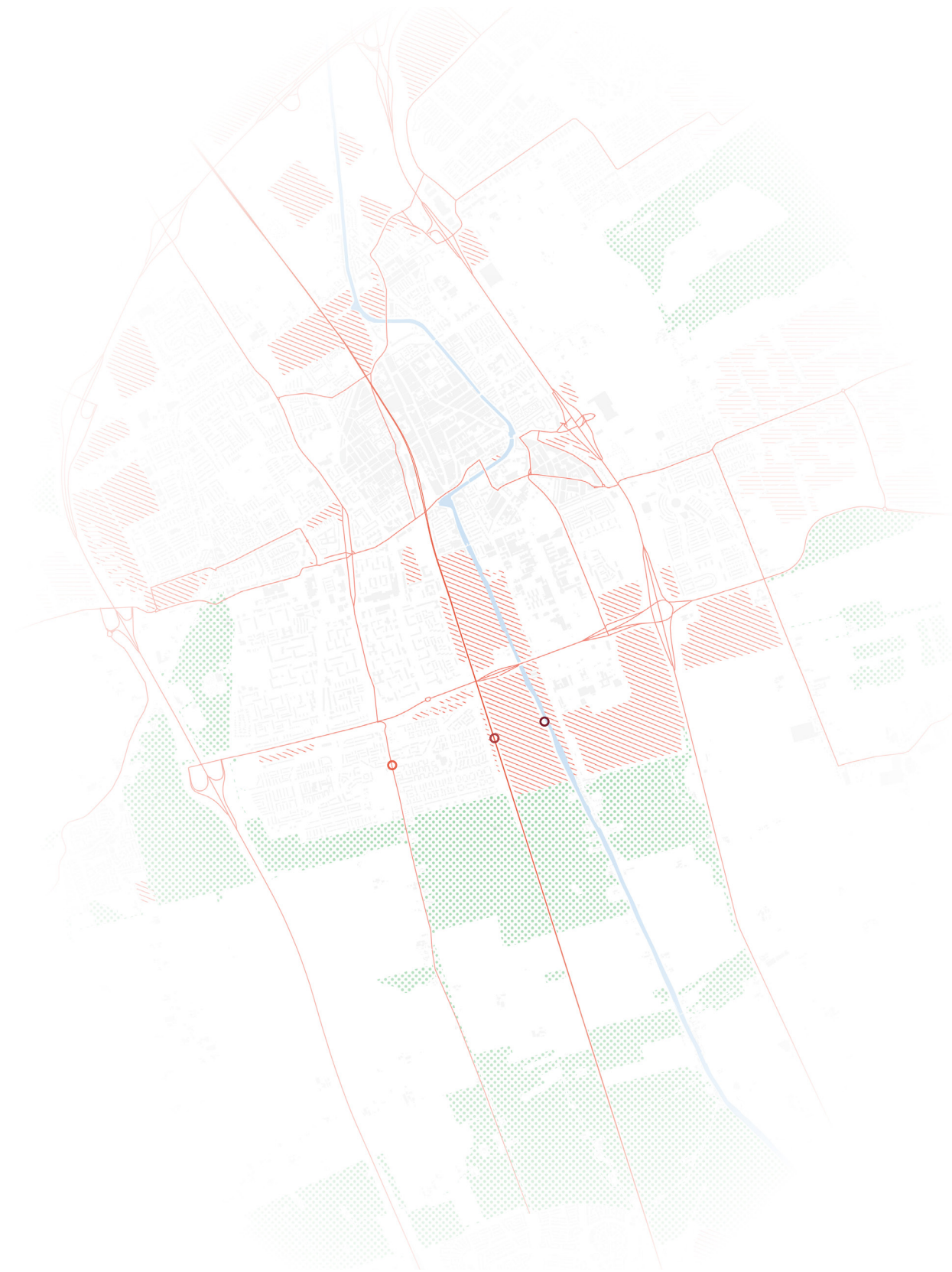
- LEGEND
- Water
 - Residential area
 - Industry
 - Staatsbosbeheer
 - Grassland
 - Industrial terrain
 - Horticulture
 - NS station
 - Train track



Abtswoudse Bos | Lack of public program



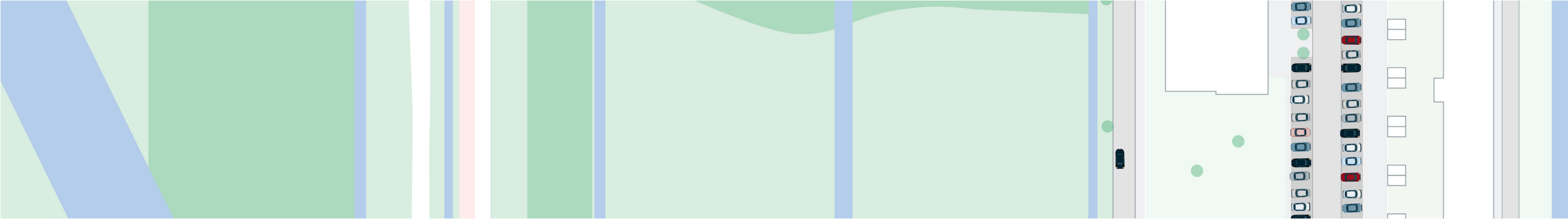
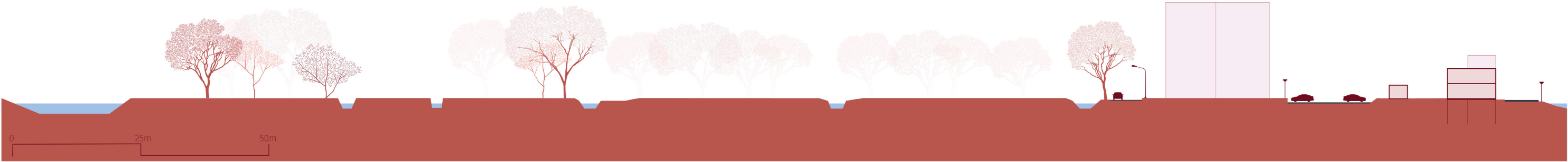
Abtswoudse Bos | Routes for slow traffic



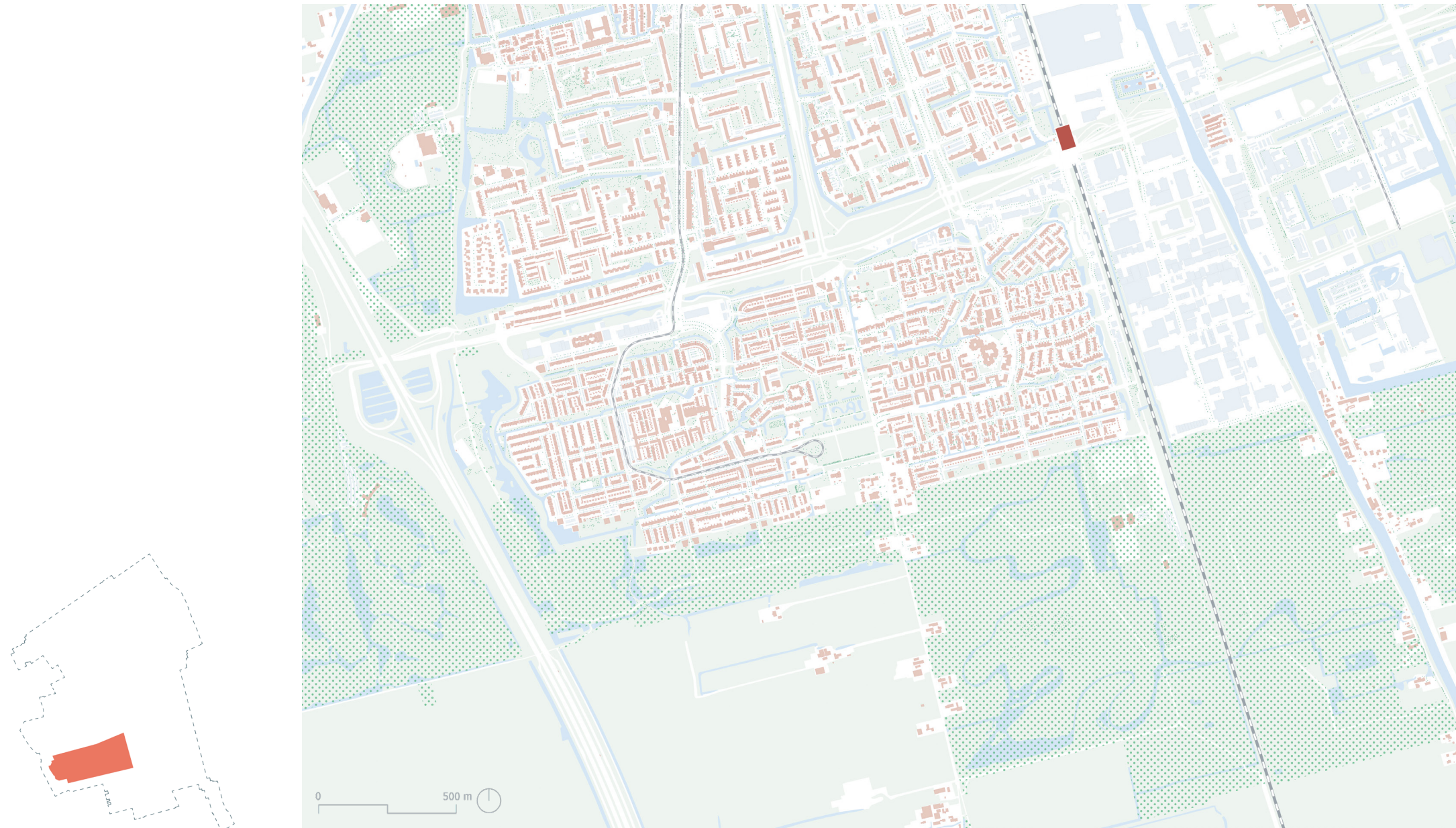
Unattractive zones for slow traffic, Delft (UEEC lab, 2021)



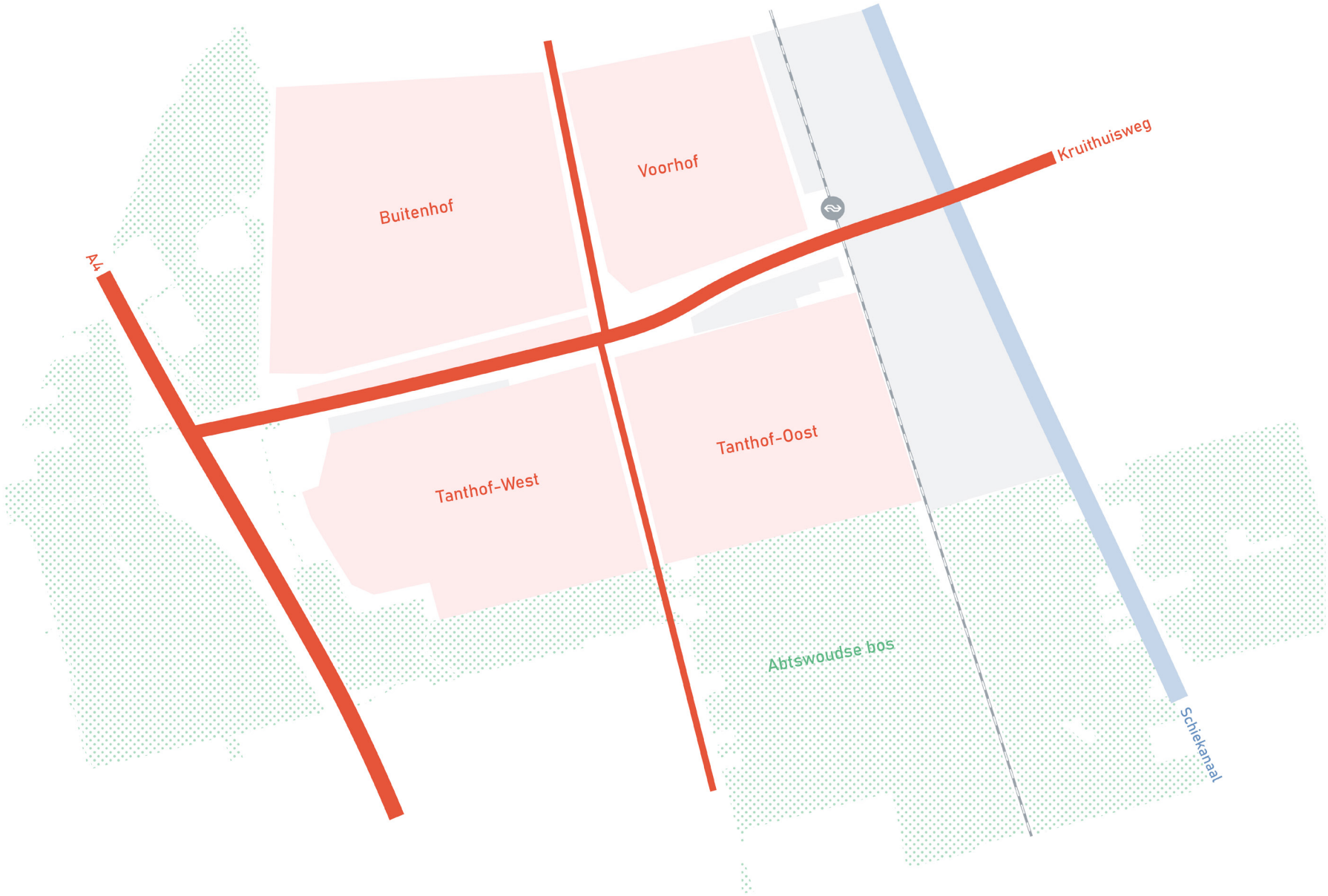
Transition Abtswoudse Bos - Tanthof



Tanthof



Tanthof

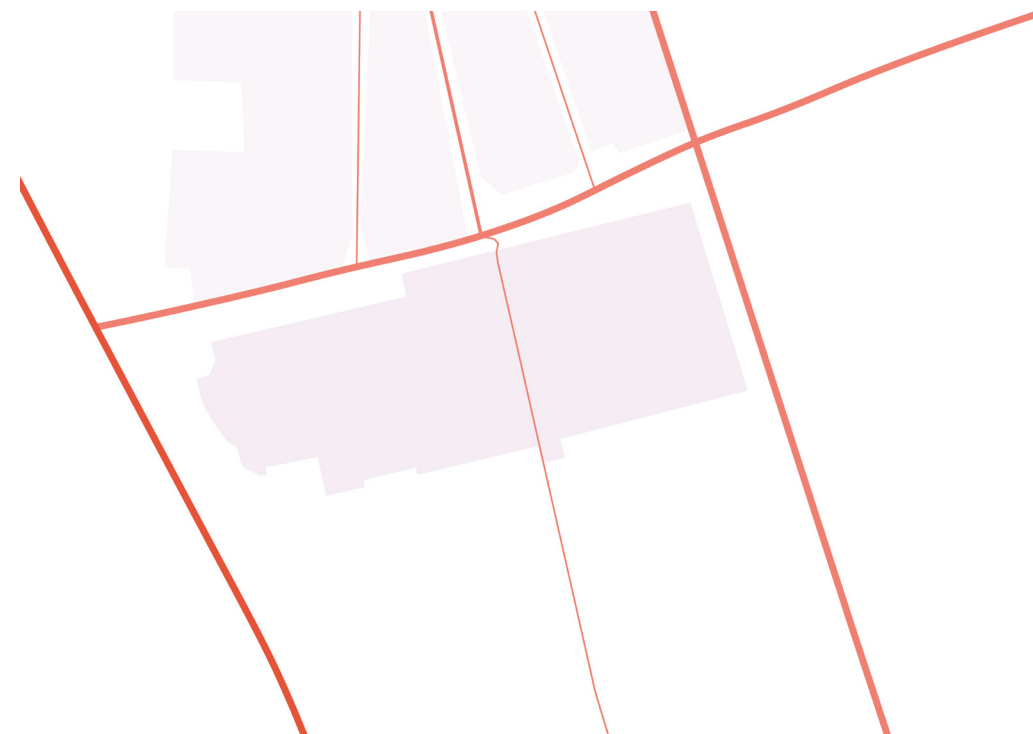


Tanthof | Eco-neighbourhood

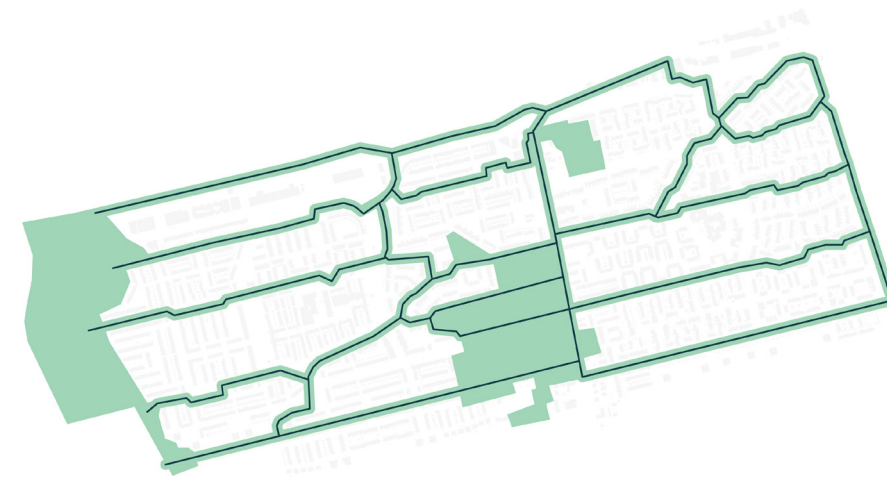


Van den Broek en Bakema, Plan Tanthof Delft, 1969. Collectie Het Nieuwe Instituut, BROX

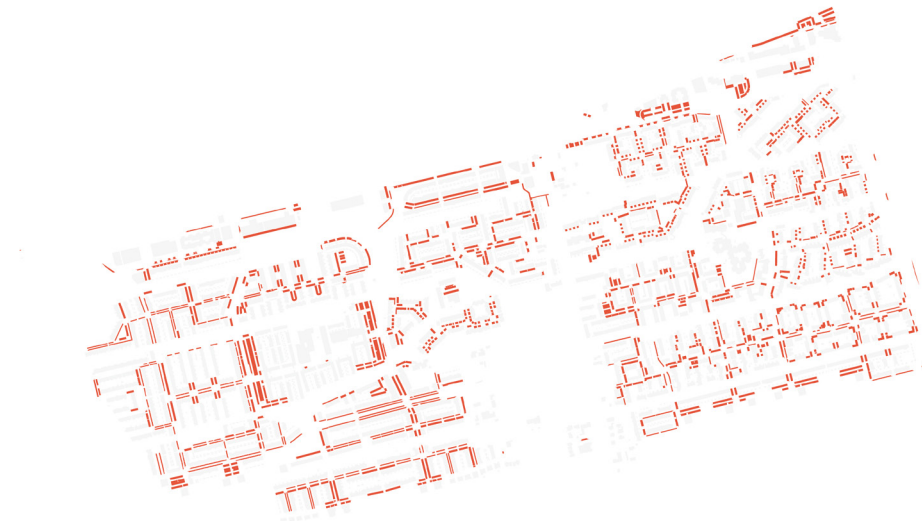
Tanthof | Enclave



Tanthof | Fenced green



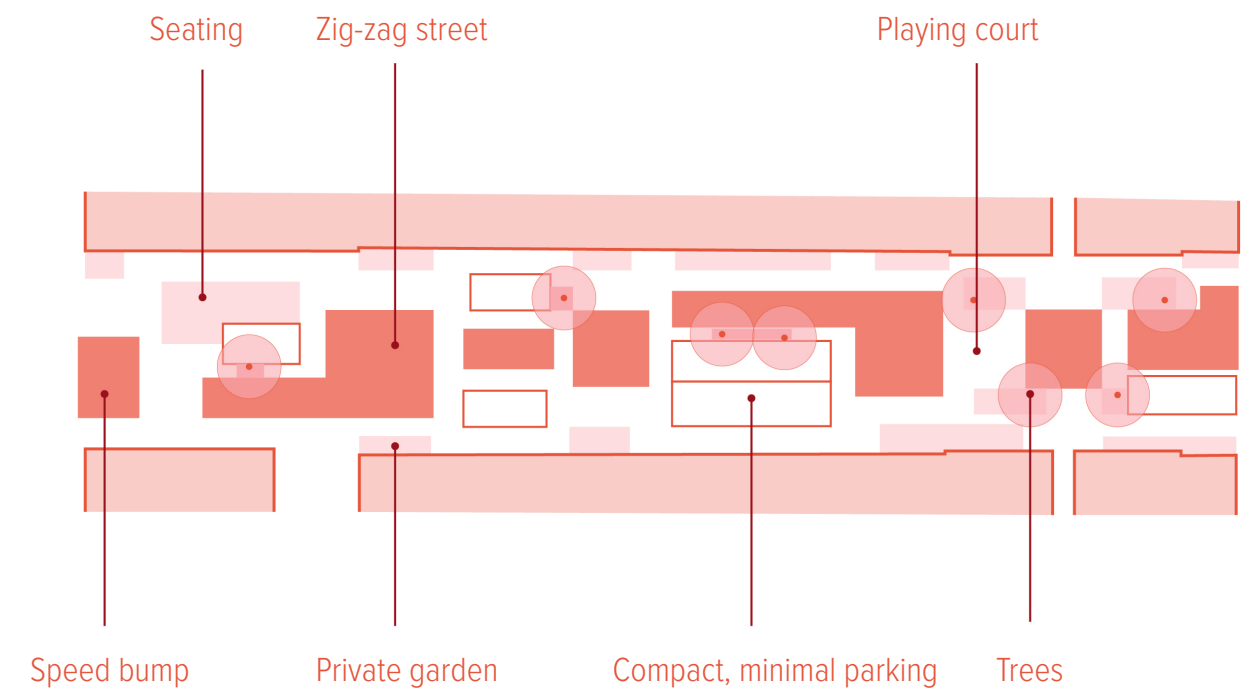
Tanthof | Parking (public) space



Woonerf

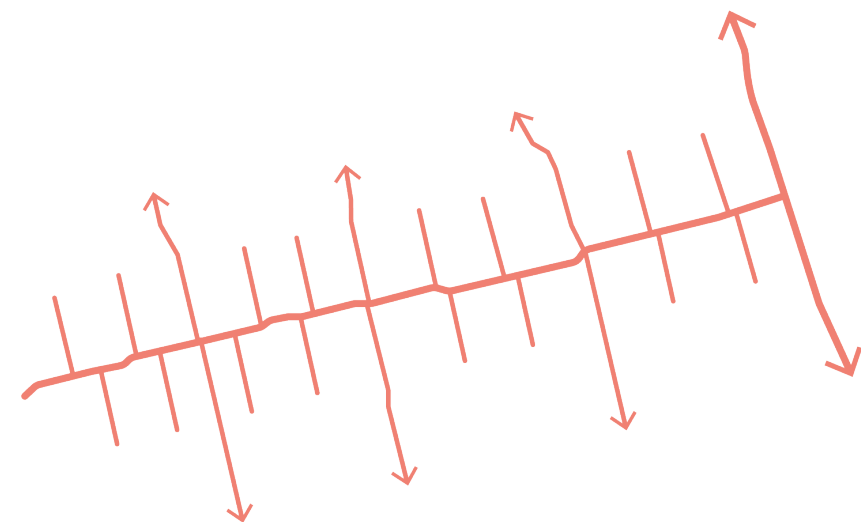


Woonerf in de Vogelenbuurt in Utrecht, 2018, z.d. source: www.anwb.nl

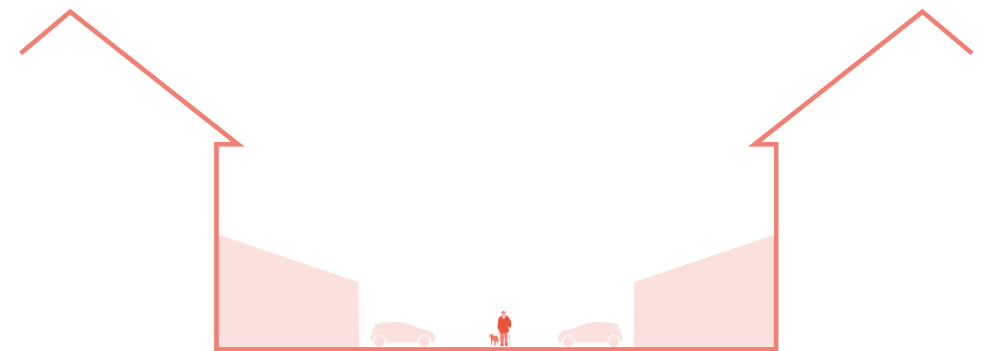


Woonerf: development in planning and design of dutch 'woonerven', (Bach, 1983)

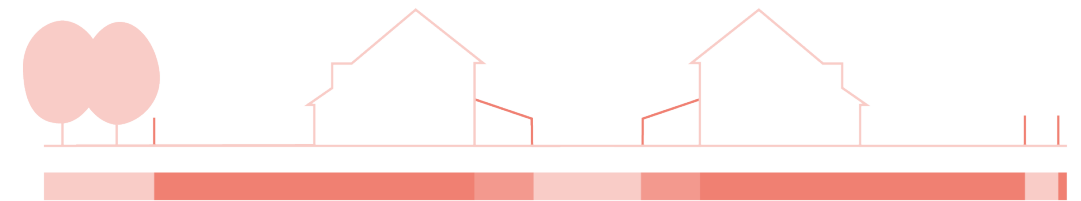
Woonerf | Cul de sac



Woonerf | Universal street



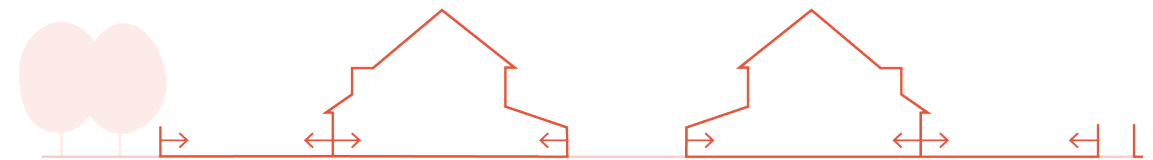
Woonerf | Privacy



Woonerf | Layout of the house

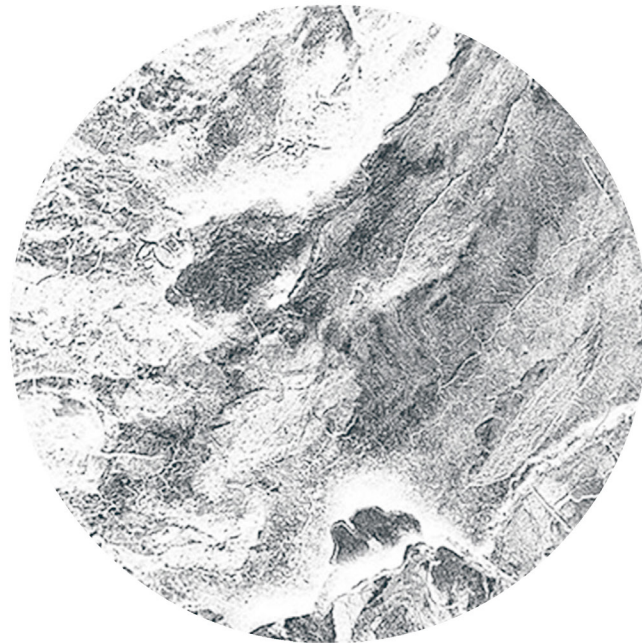


Woonerf | Interaction





Human-Nature Dualism



Oneness



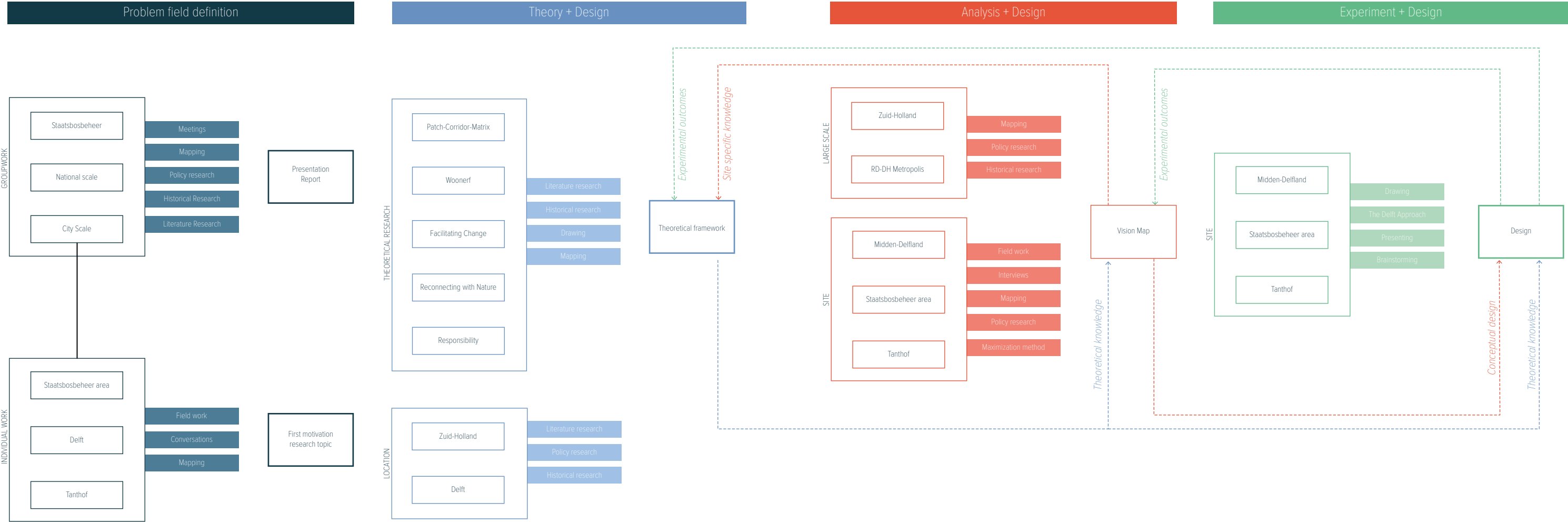
“If the planet is a garden, we are all gardeners – perhaps not aware of it, yet the choices and lifestyles of each of us have an impact on the biosphere and on our collective, vital space. The gardener discovers something new in their garden every day. They are in constant dialogue with all of diversity.”

-Gilles Clément, 2021

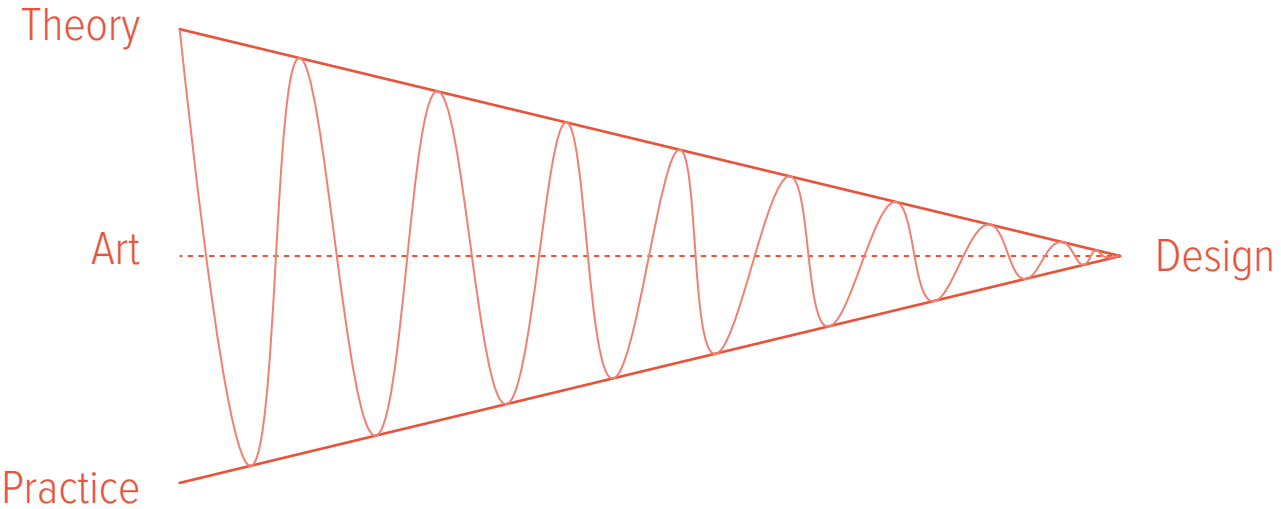
Research Question

How can urban design of the **woonerf** type in Tanthof contribute to **reconnecting people** to the natural landscape system of Midden-Delfland, by facilitating meaningful **gardens of responsibility**?

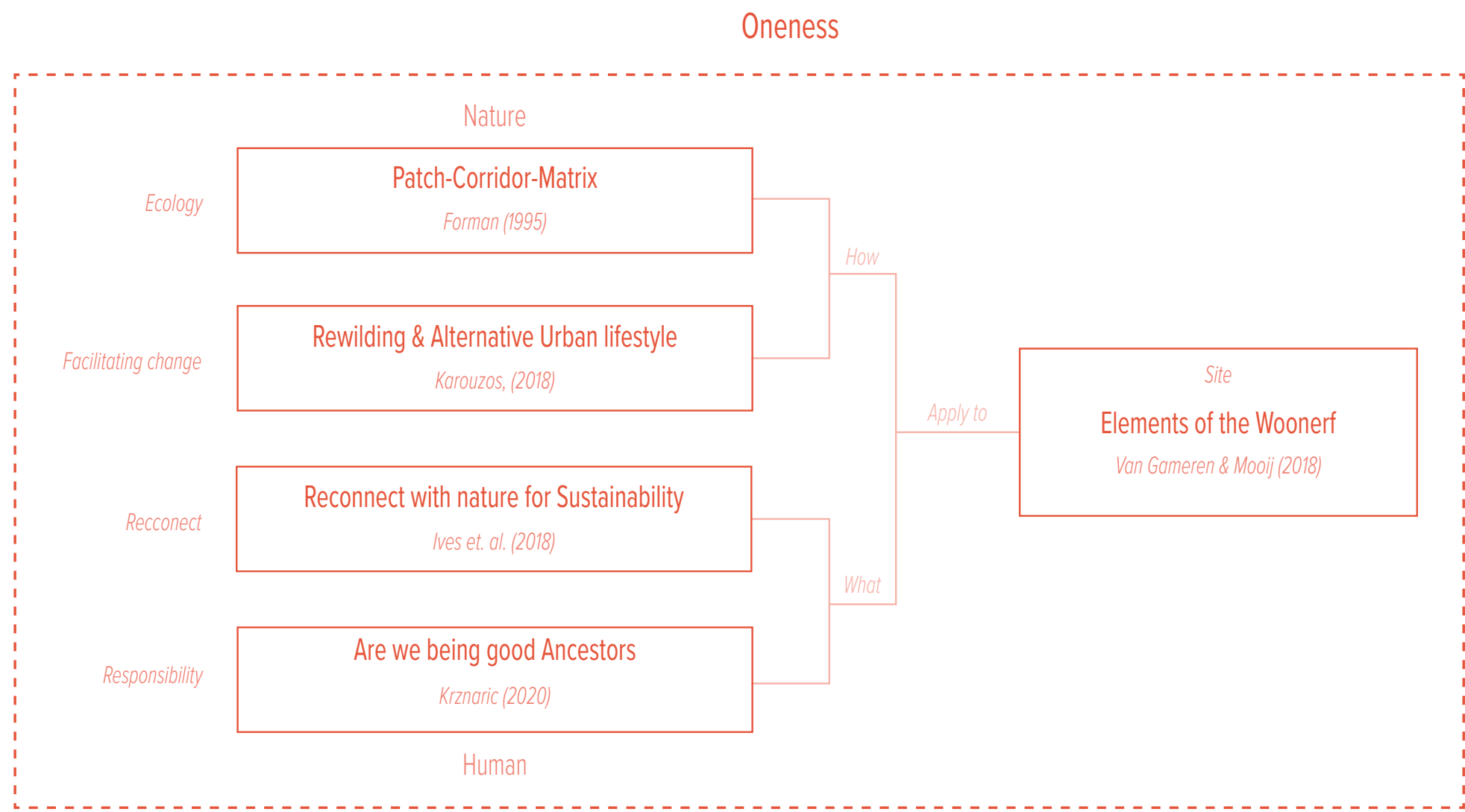
Research I Methods



Research | Design process



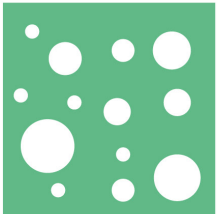
Research | Theoretical framework



Theory | Reconnecting with nature



Material



Experience



Cognitive



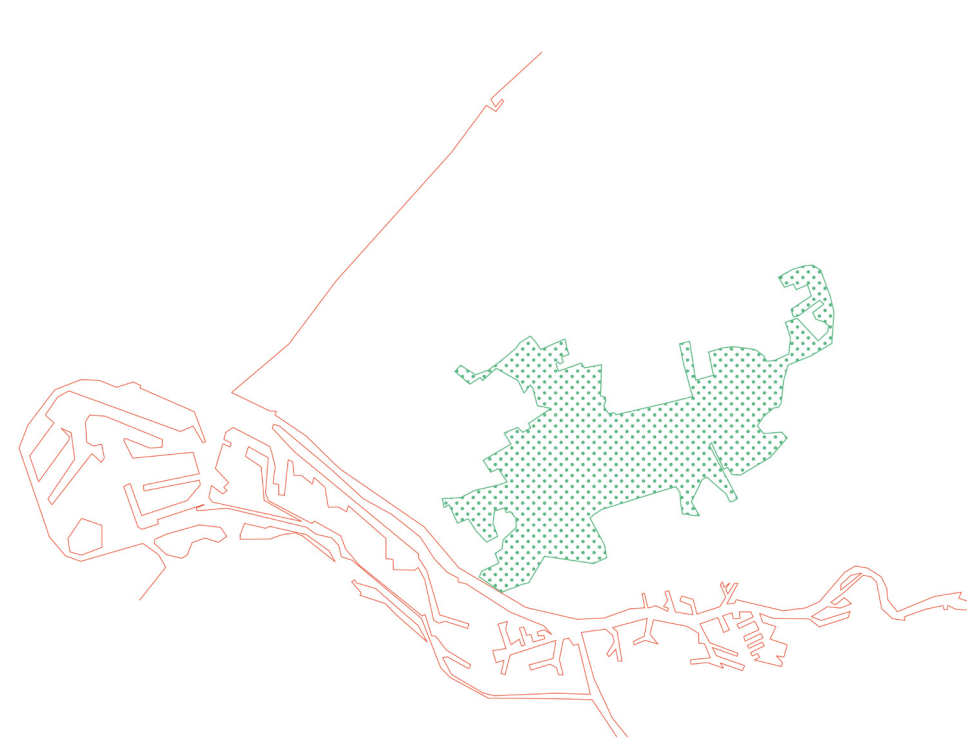
Emotional



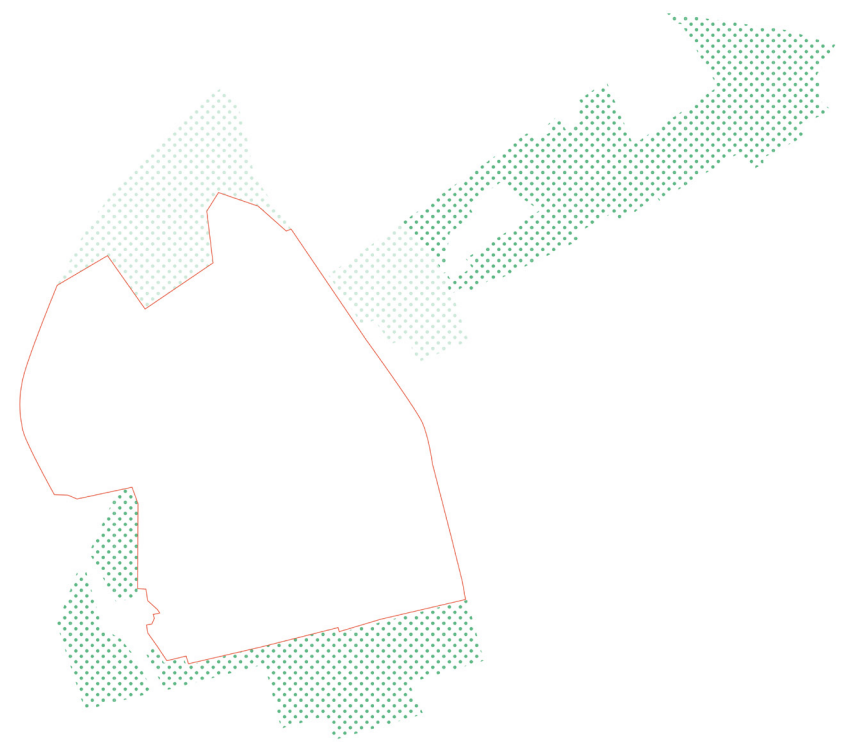
Philosophical



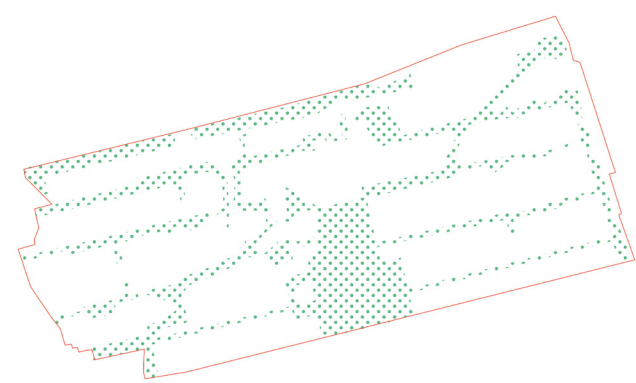
Gardens of Responsibility



Metropolitan Garden

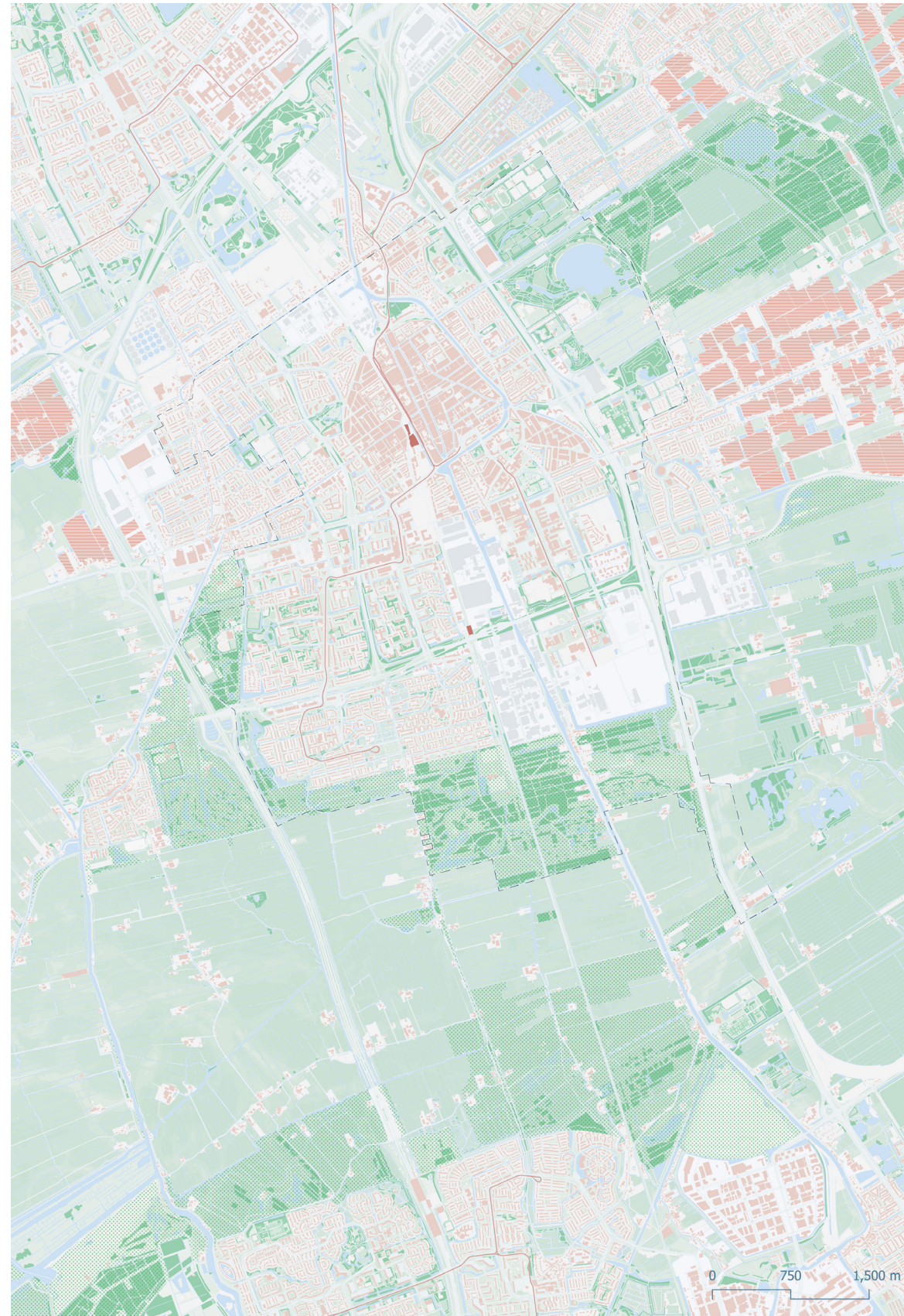


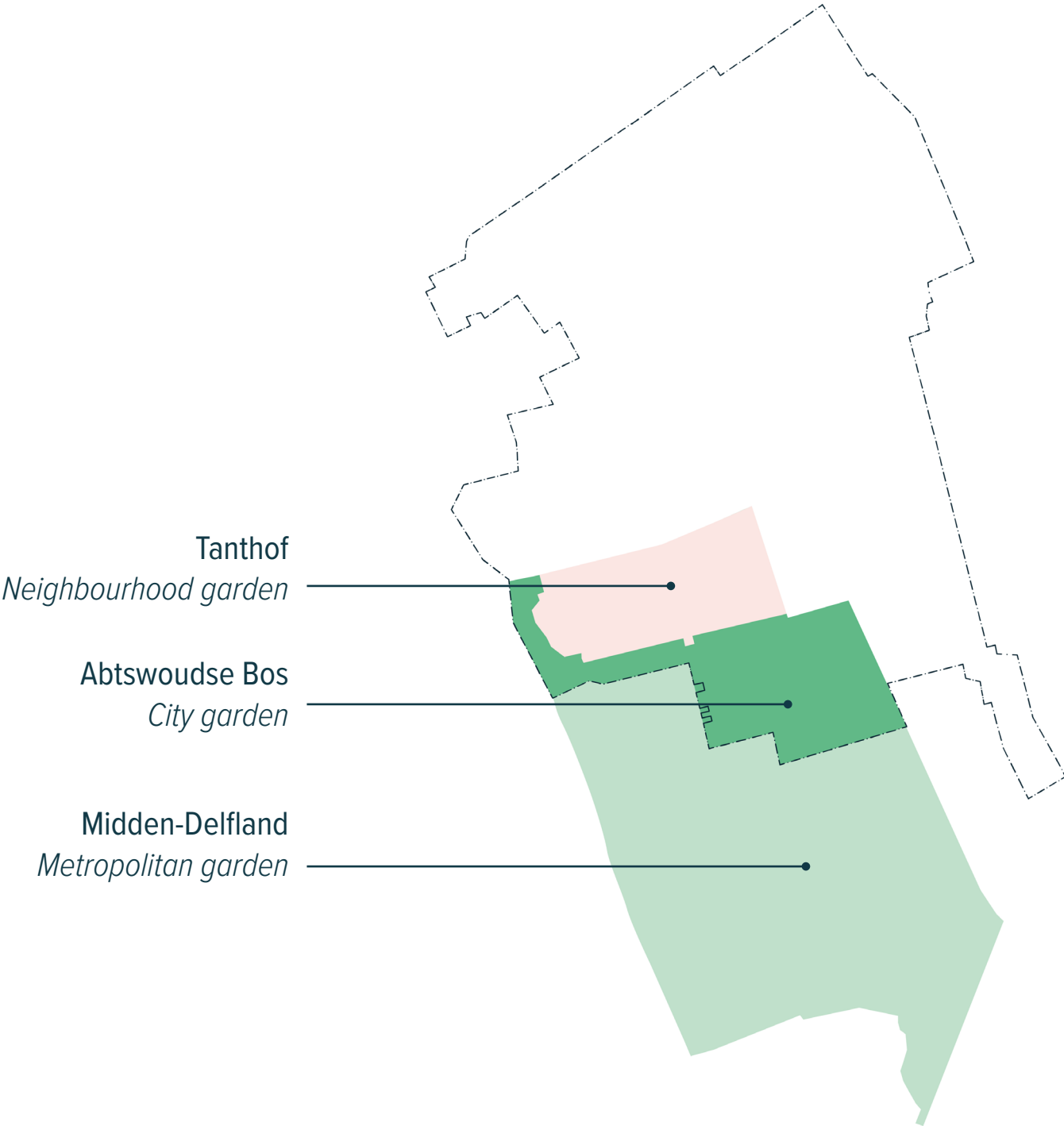
City Garden



Neighbourhood Garden

Design site

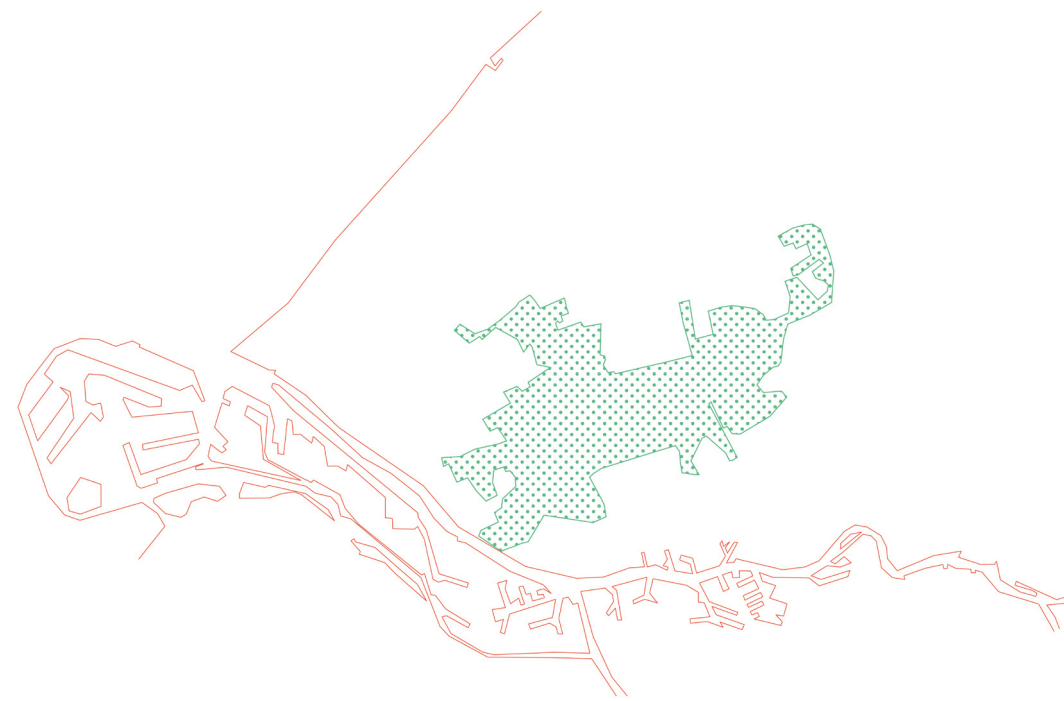




Design site | Public space

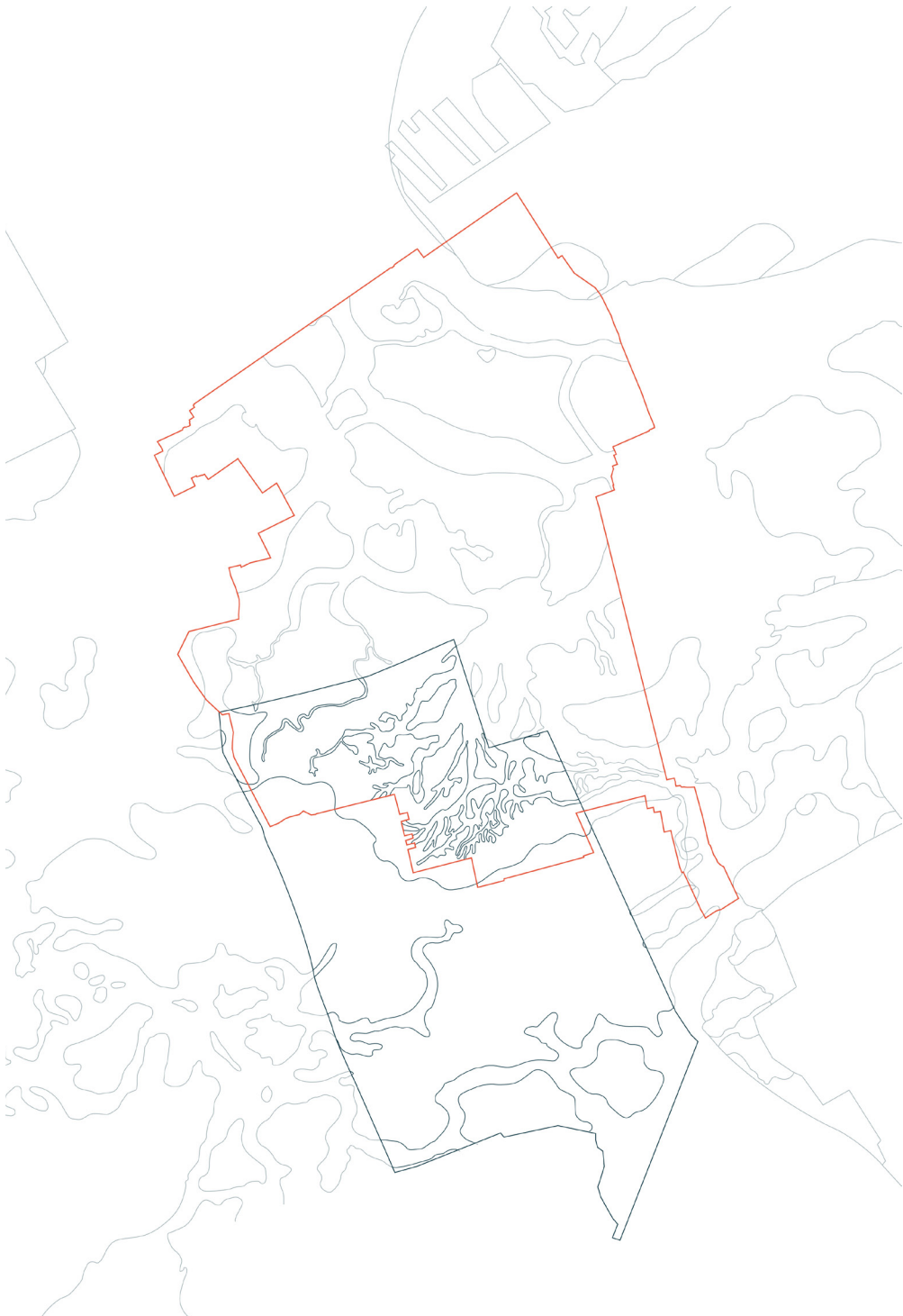
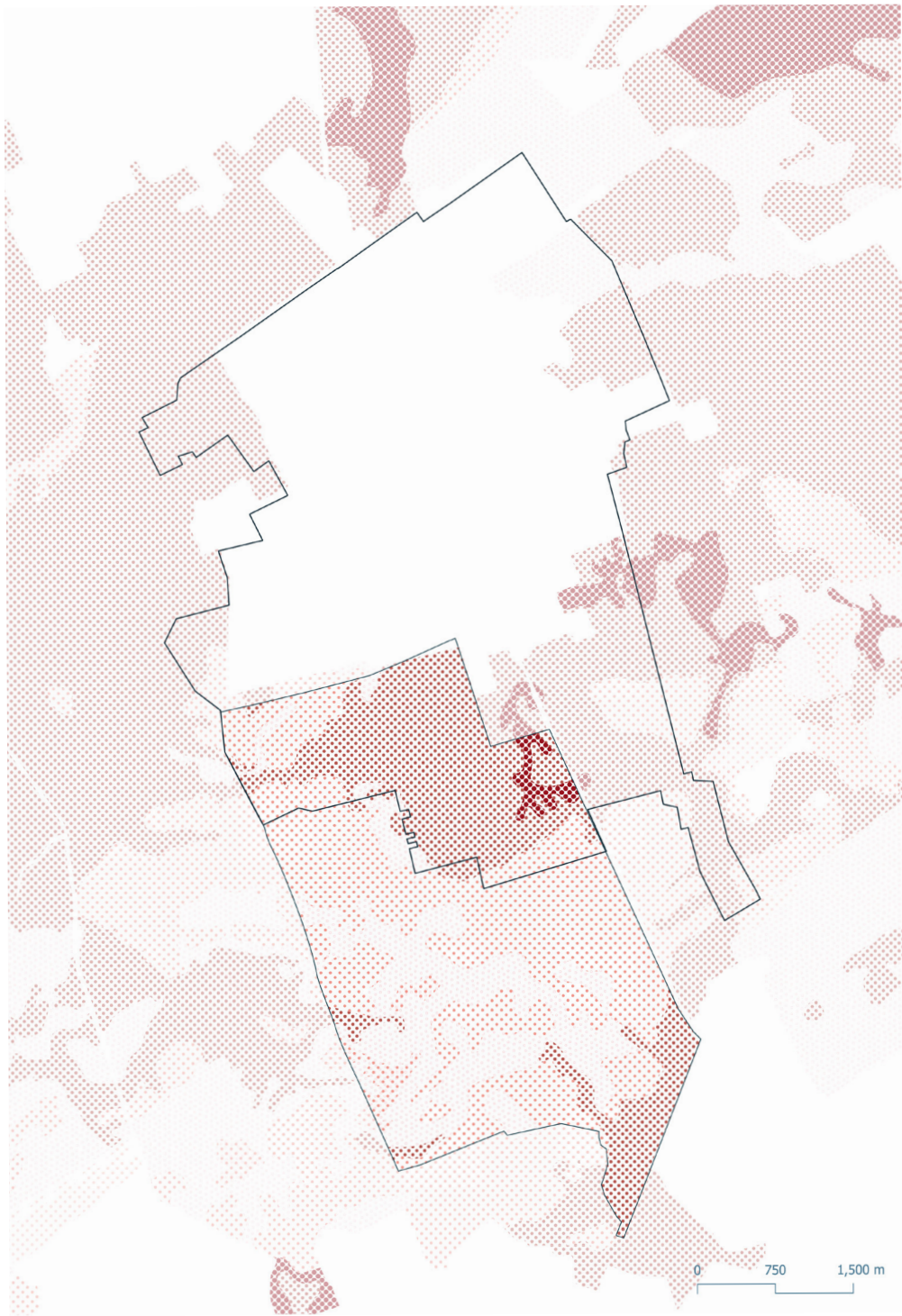


How to reconnect Tanthof to the natural system of Midden-Delfland in a meaningful way?



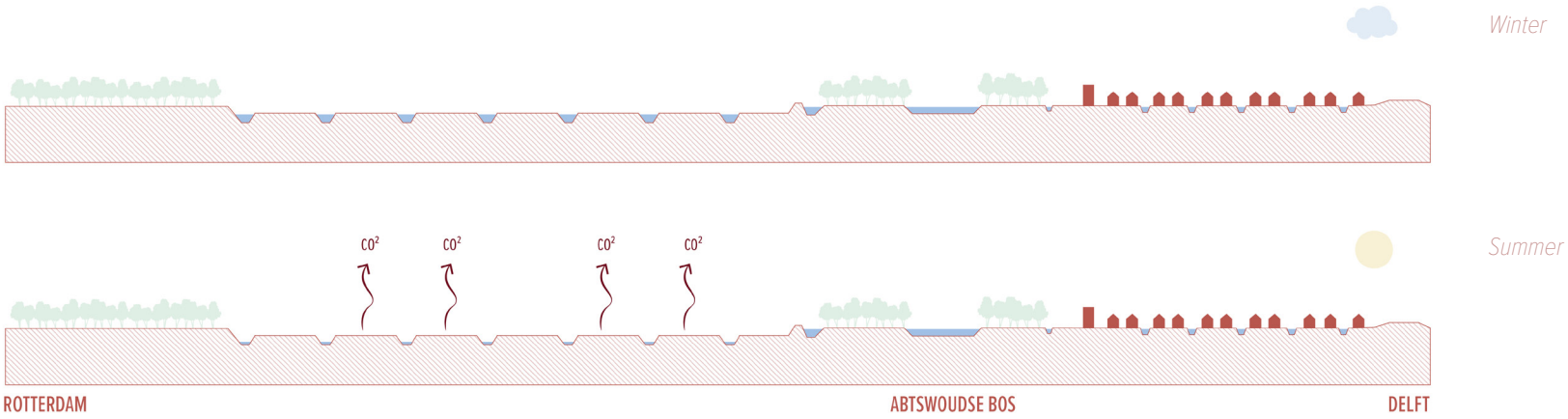
Metropolitan Garden

Midden-Delfland | Geomorphology

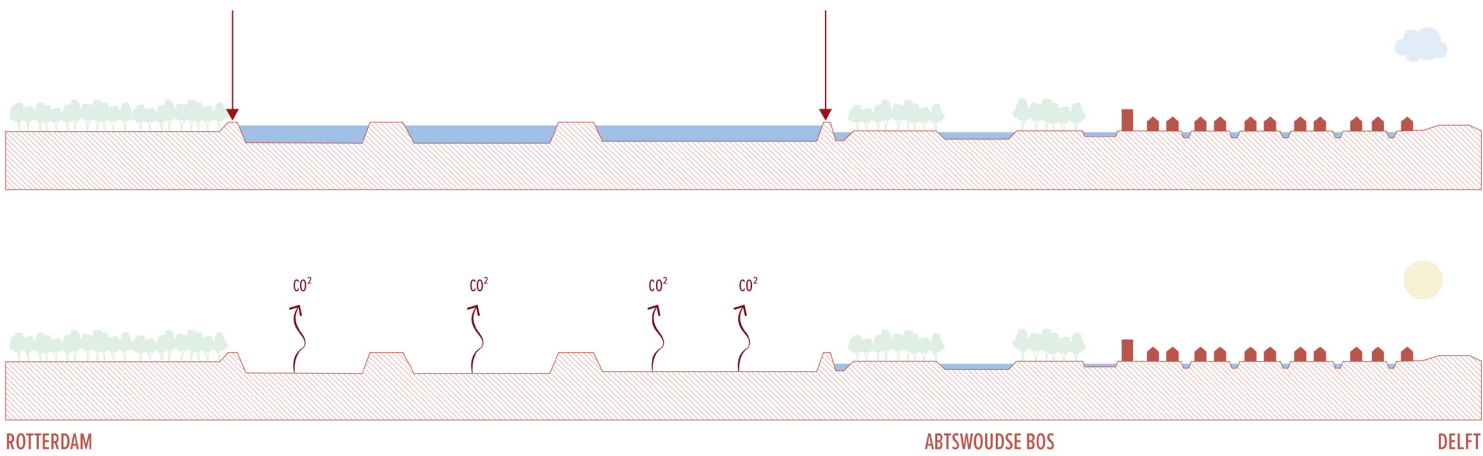


Midden-Delfland | Paradox of control

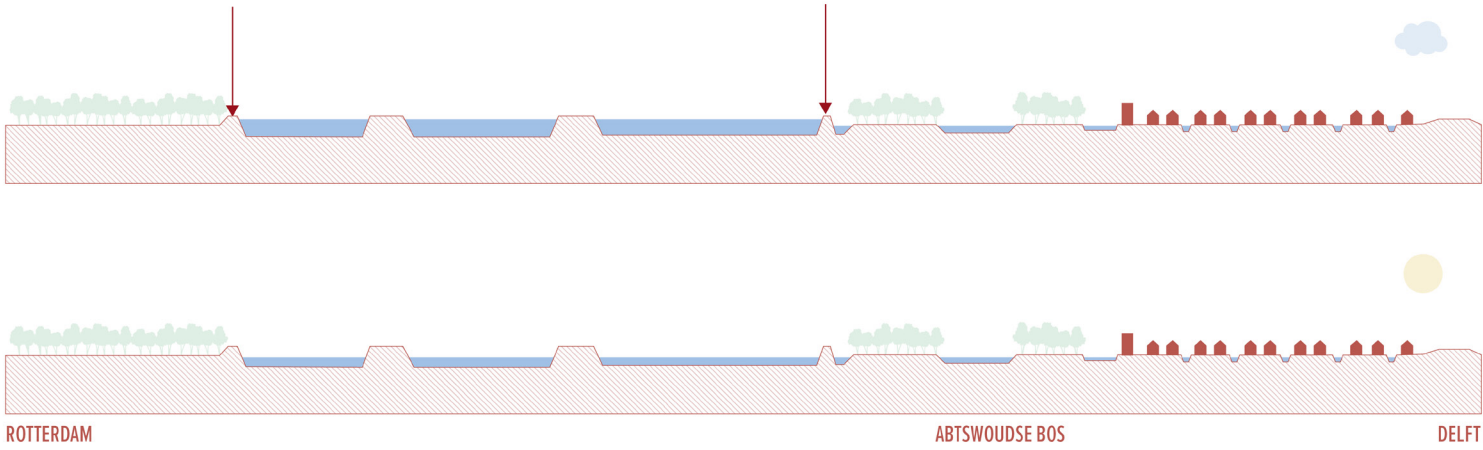
Agriculture

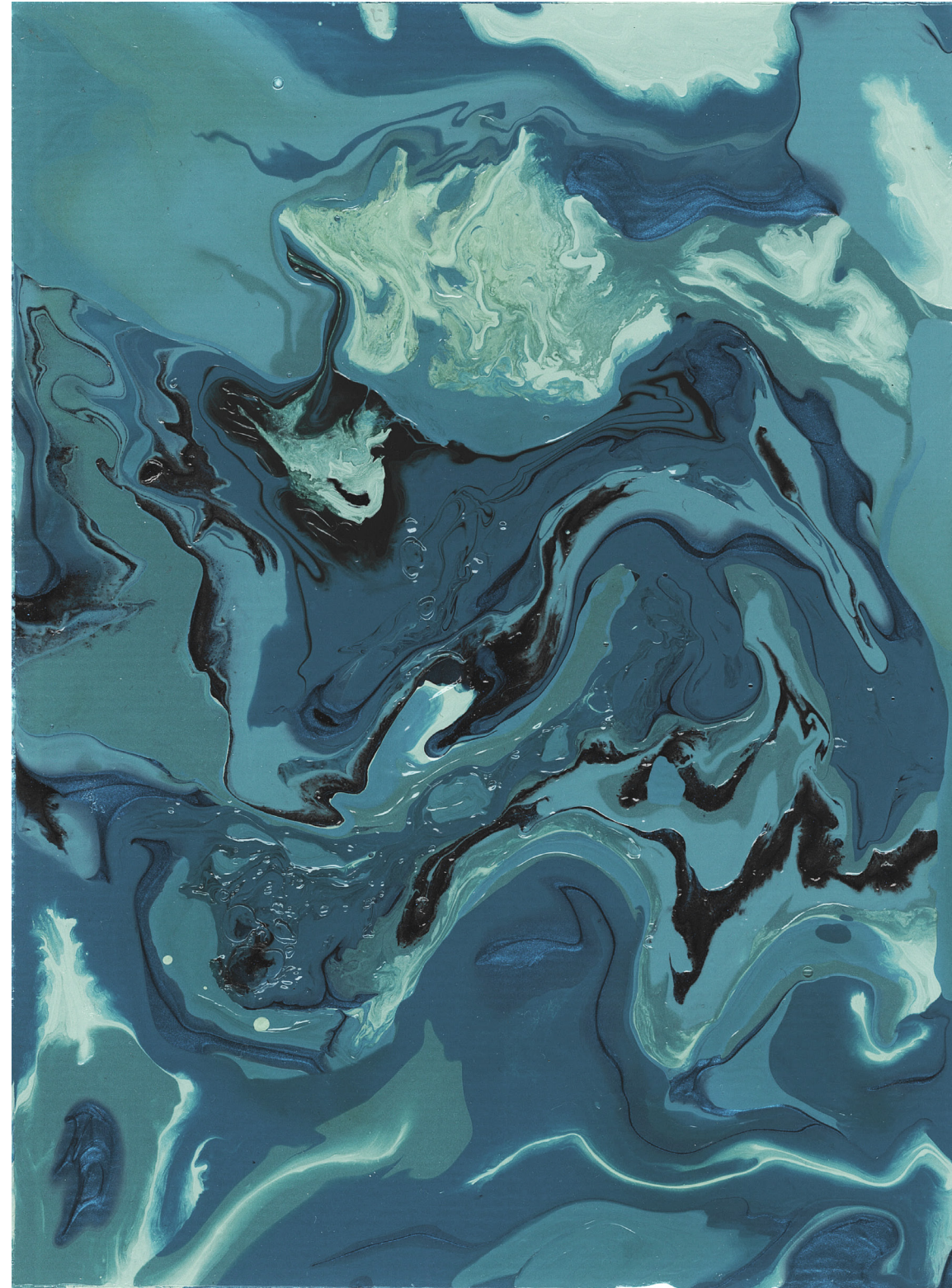


Wetland using rainwater

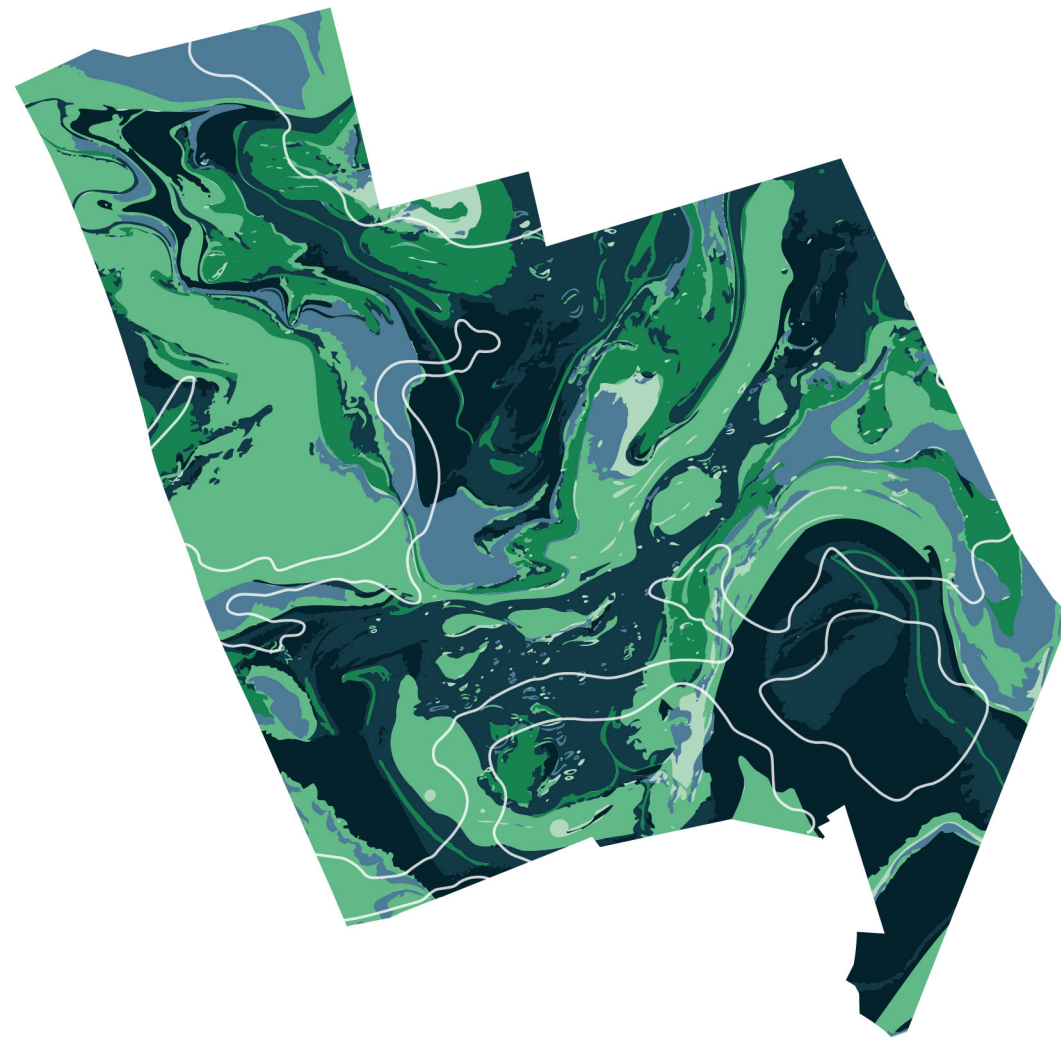


Wetland using rainwater and water from the Schie



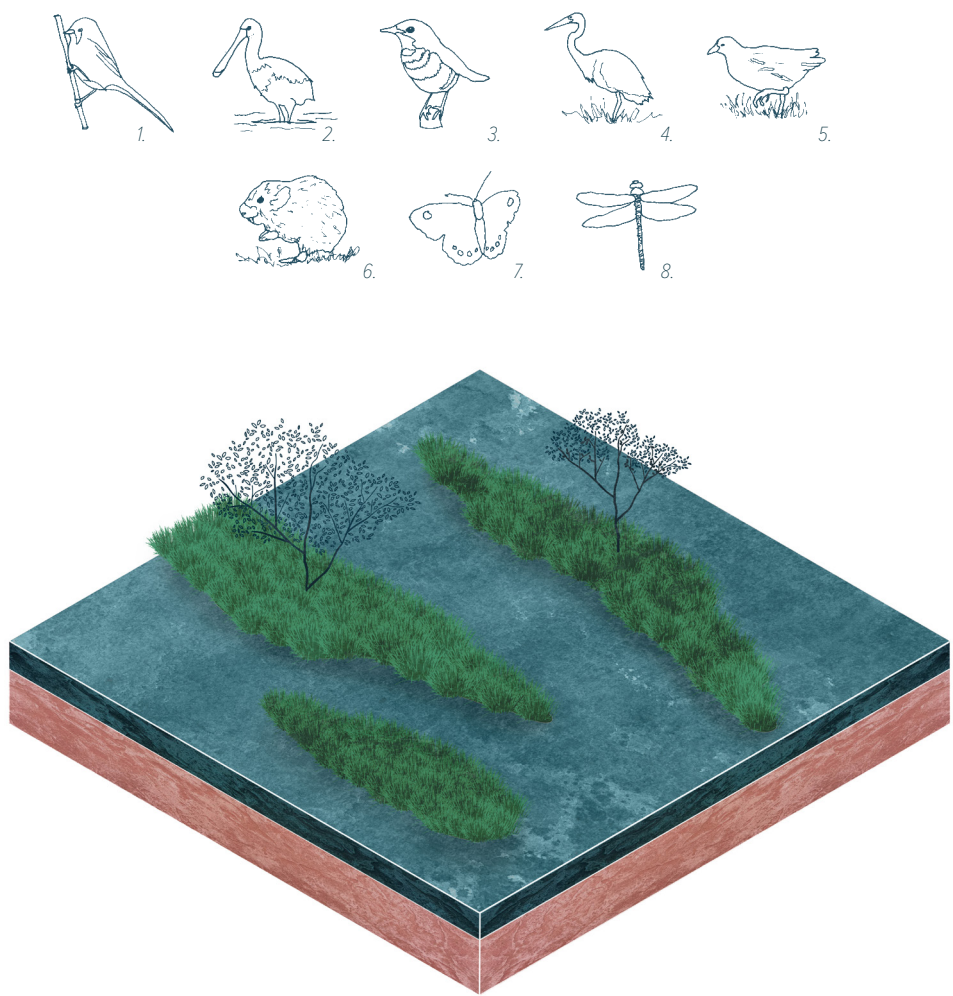


Midden-Delfland | Natural landscape system

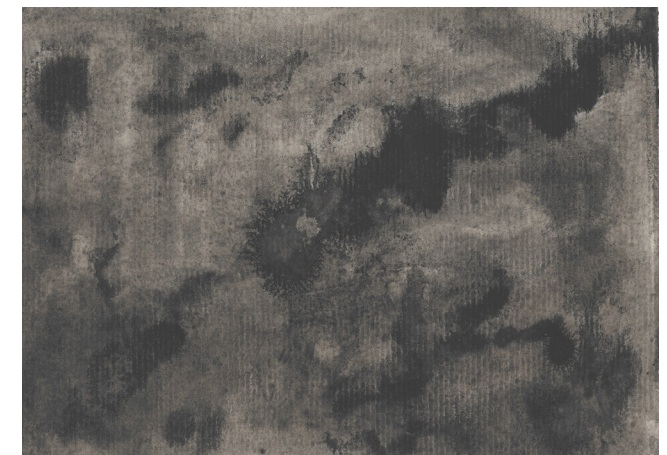
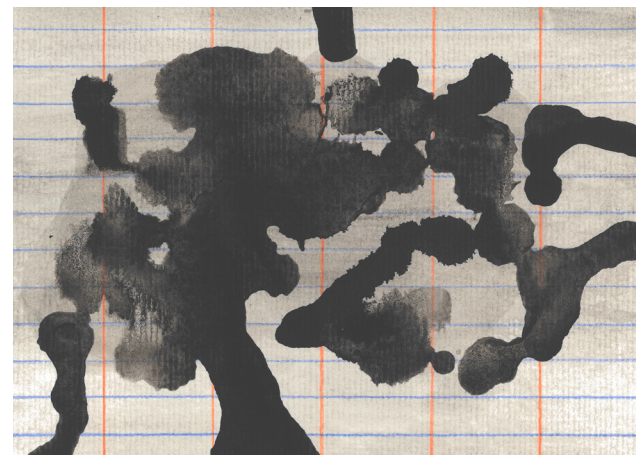
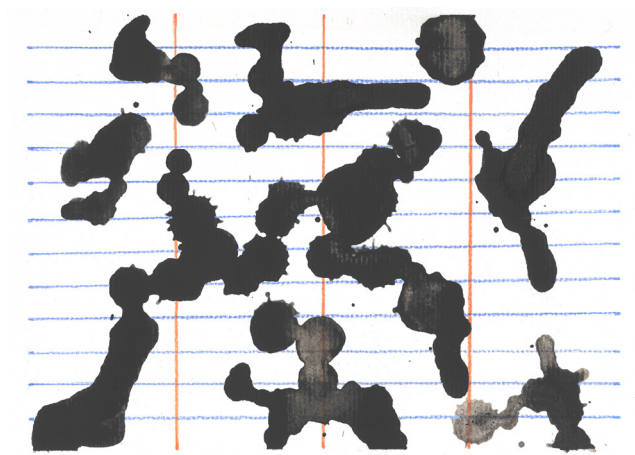


Midden-Delfland | Dynamic Wetland

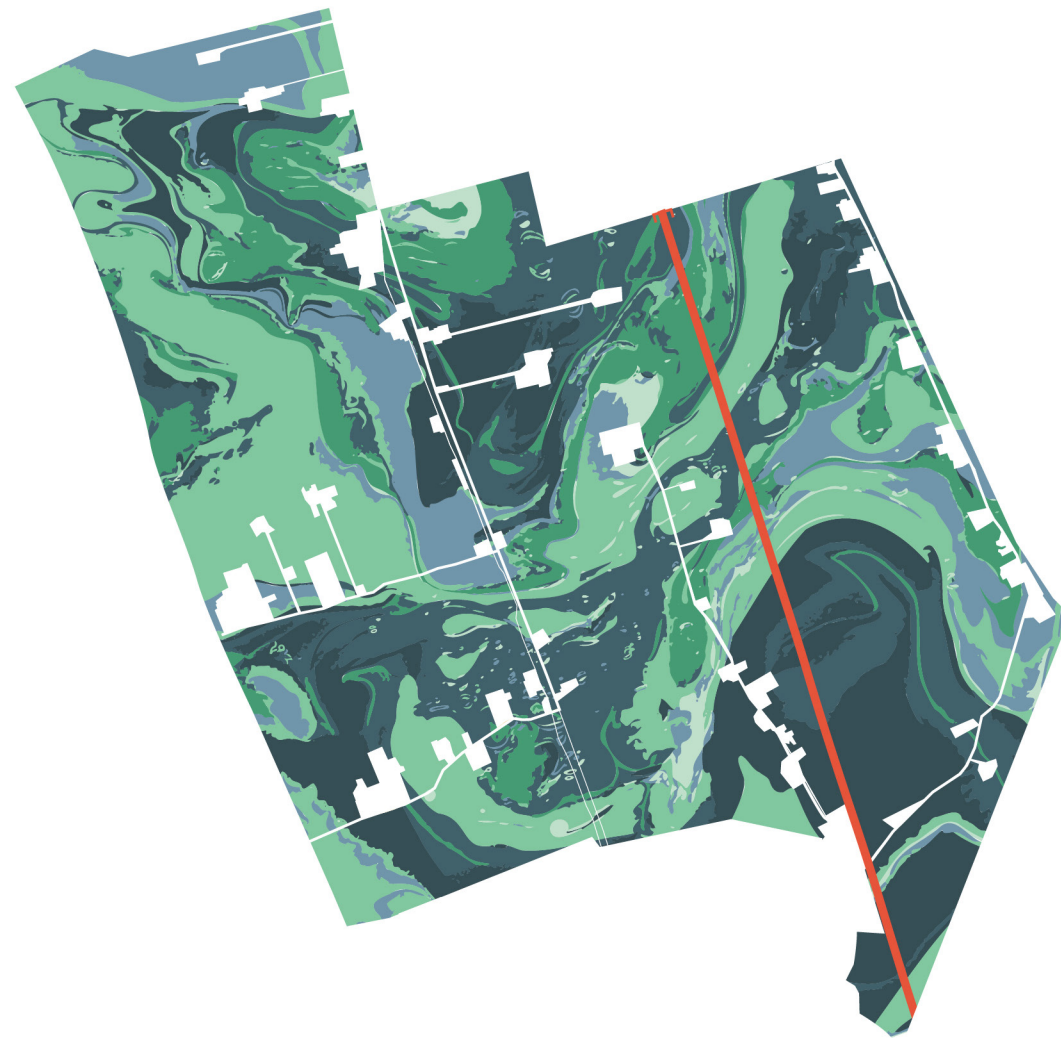
- 1. Bearded reedling
- 2. Common spoonbill
- 3. Bluethroat
- 4. Purple heron
- 5. Waterhen
- 6. Root vole
- 7. Wall brown
- 8. Green hawker
- 9. Marsh fern
- 10. Southern marsh orchid
- 11. Slender sedge
- 12. Saw-sedge
- 13. Common meadow-rue
- 14. Common mare's-tail
- 15. Cowbane
- 16. Bogbean



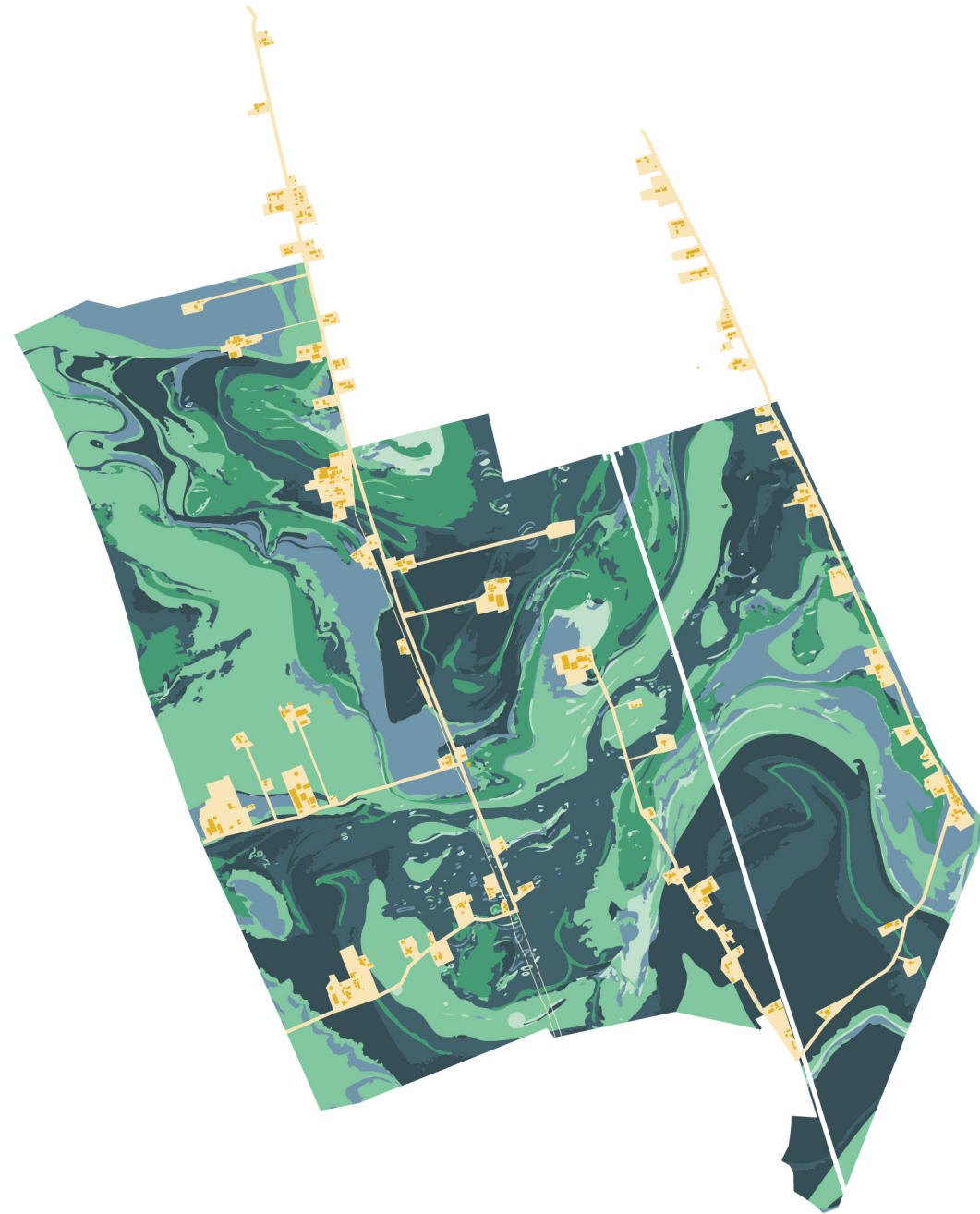
Midden-Delfland | Palimpsest



Midden-Delfland | Urban layer

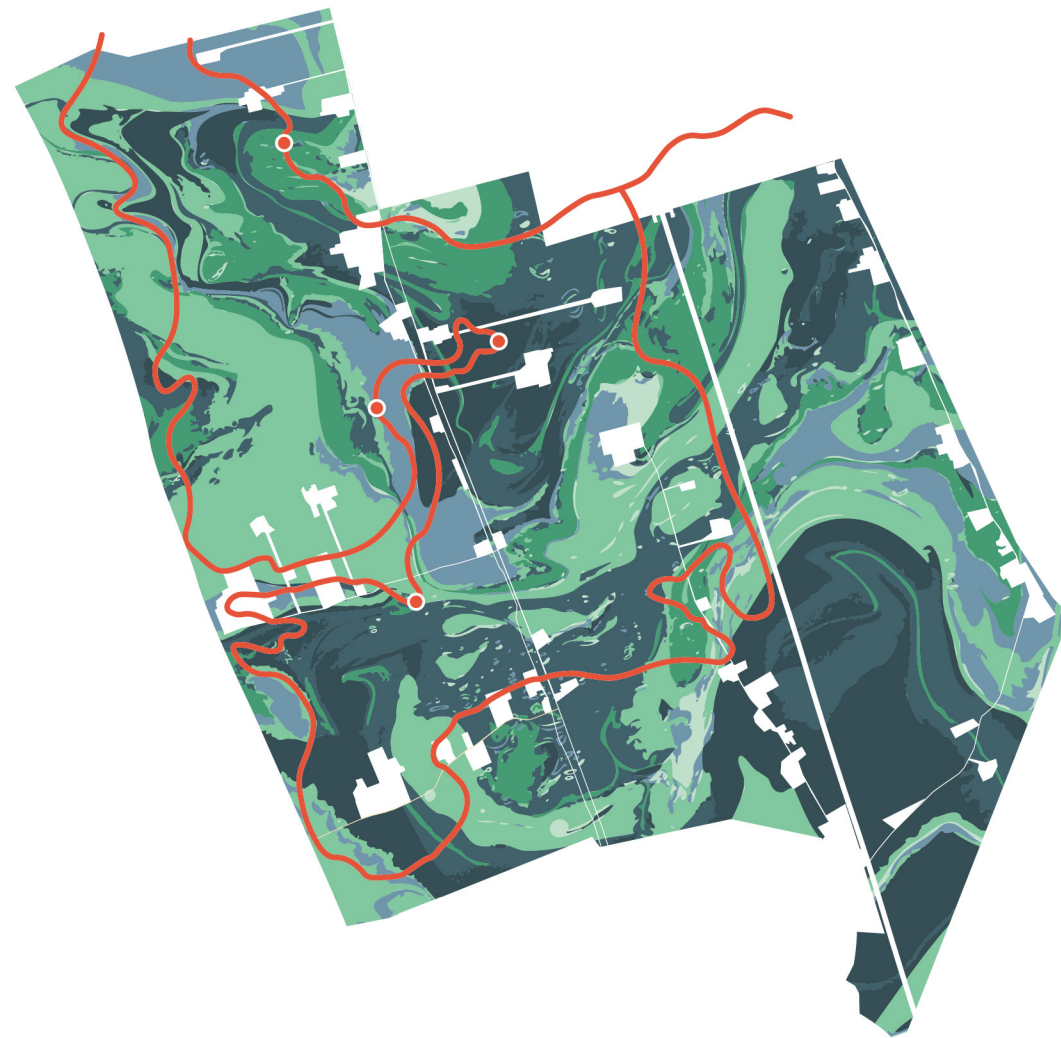


Midden-Delfland | Cultural layer

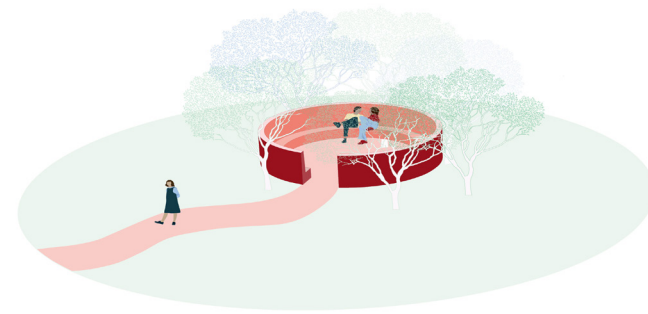




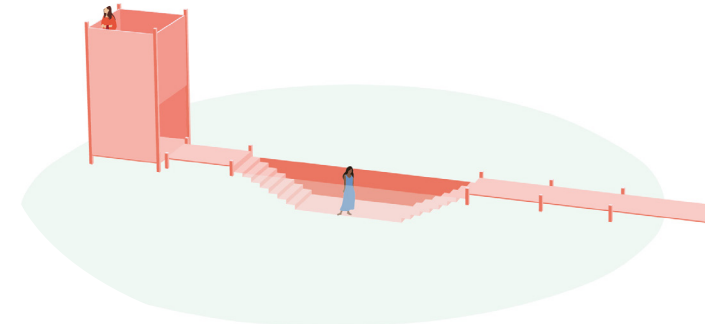
Midden-Delfland | Natural layer



Midden-Delfland | Know your place



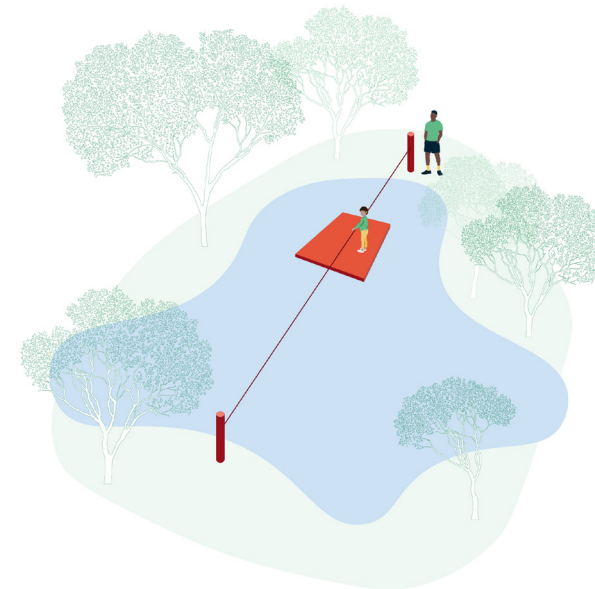
A Turret conopy view



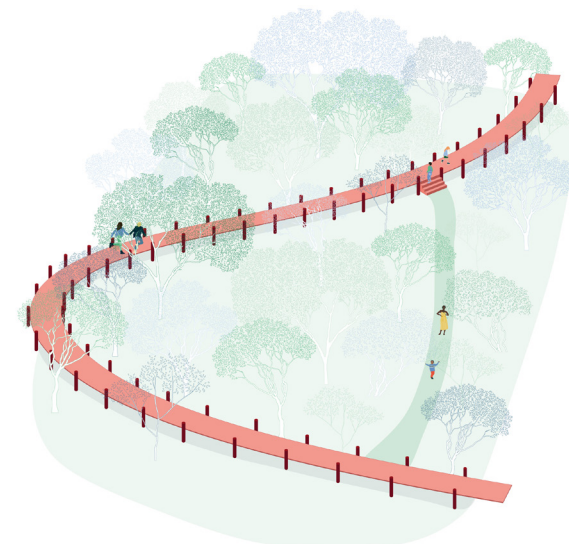
The Pit and the Tower



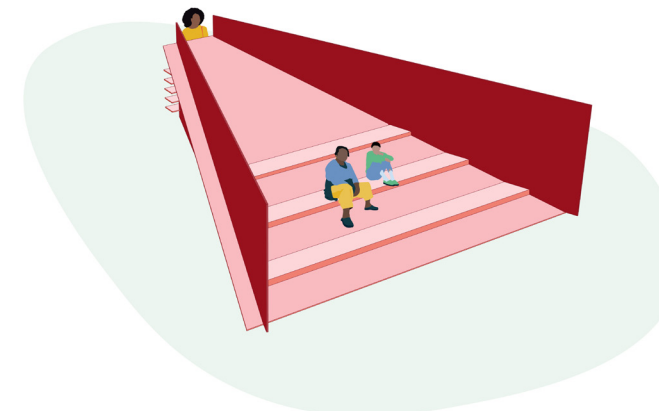
A place of reflection



Making an effort



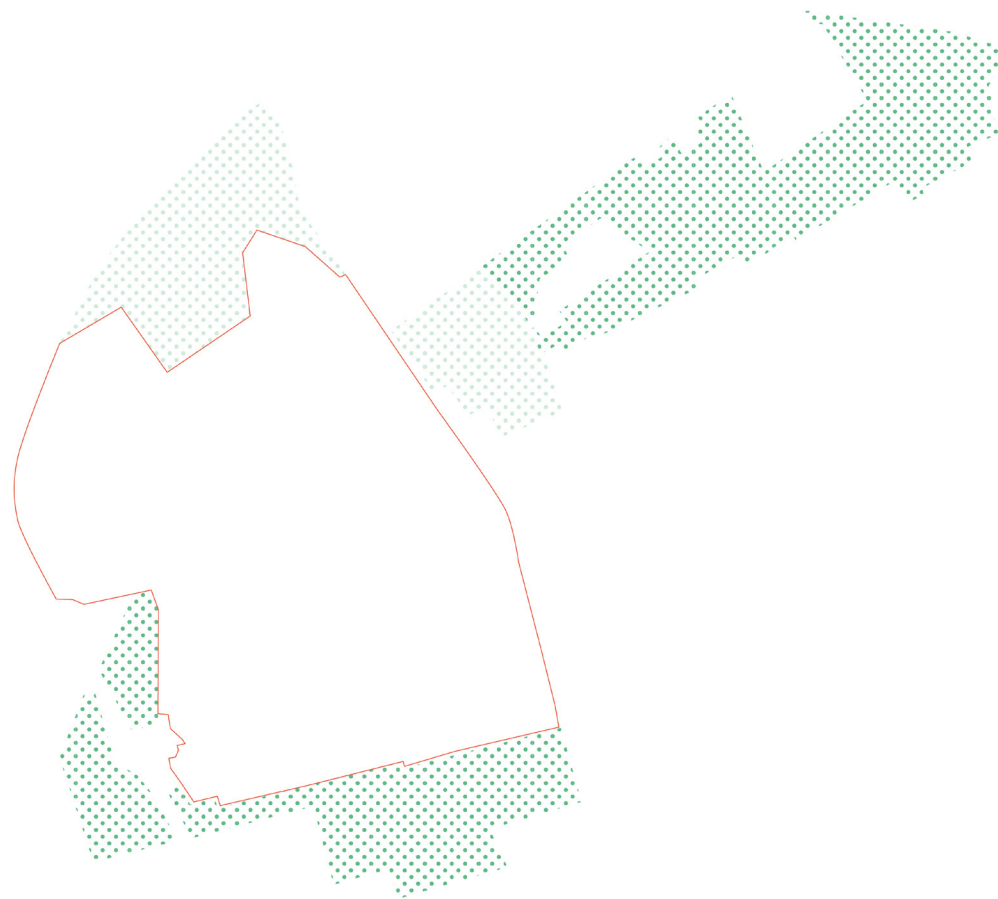
A dirty route



A change of perspective

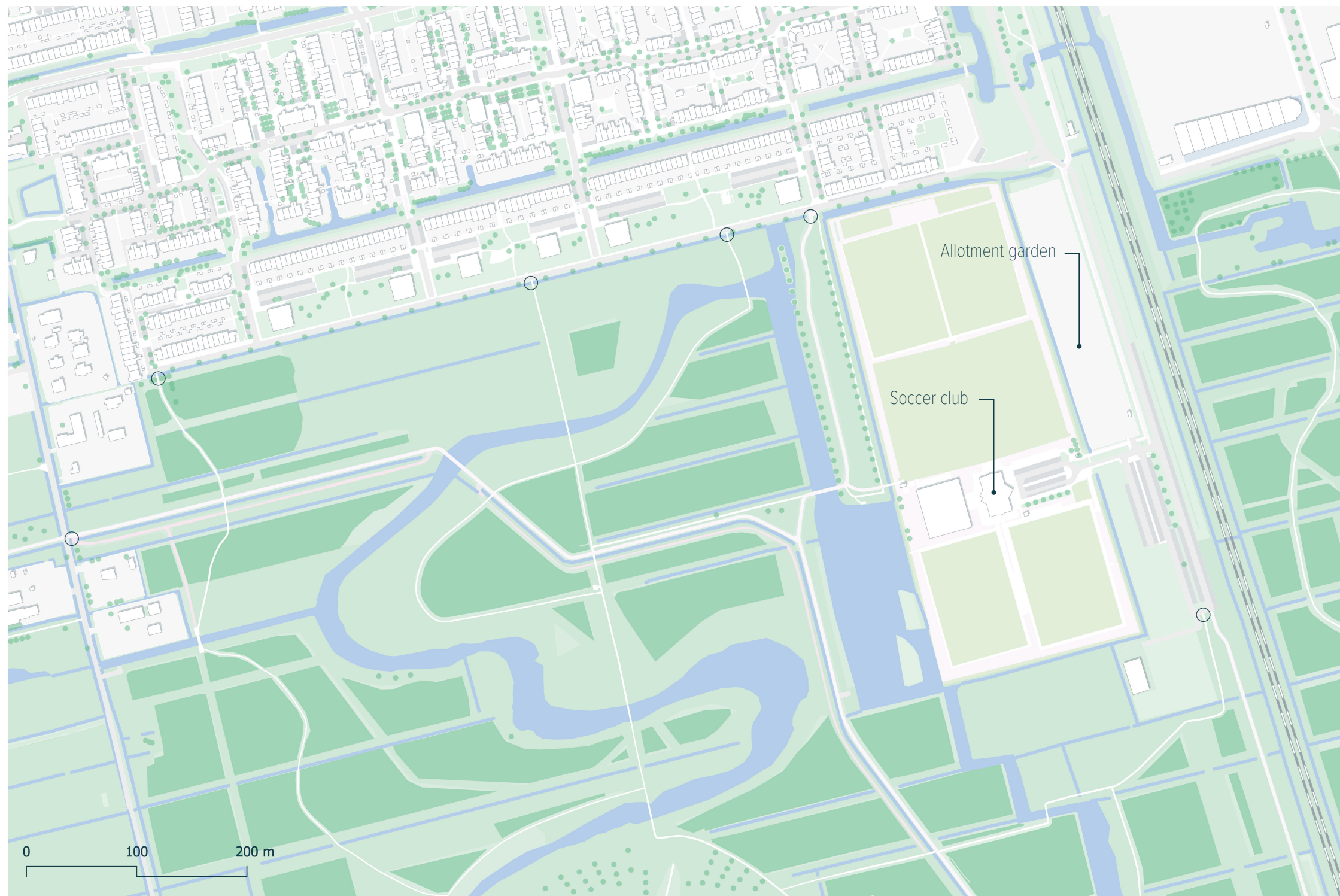


What interventions in the Abtswoudse Bos could improve the connection between city and nature?



City Garden

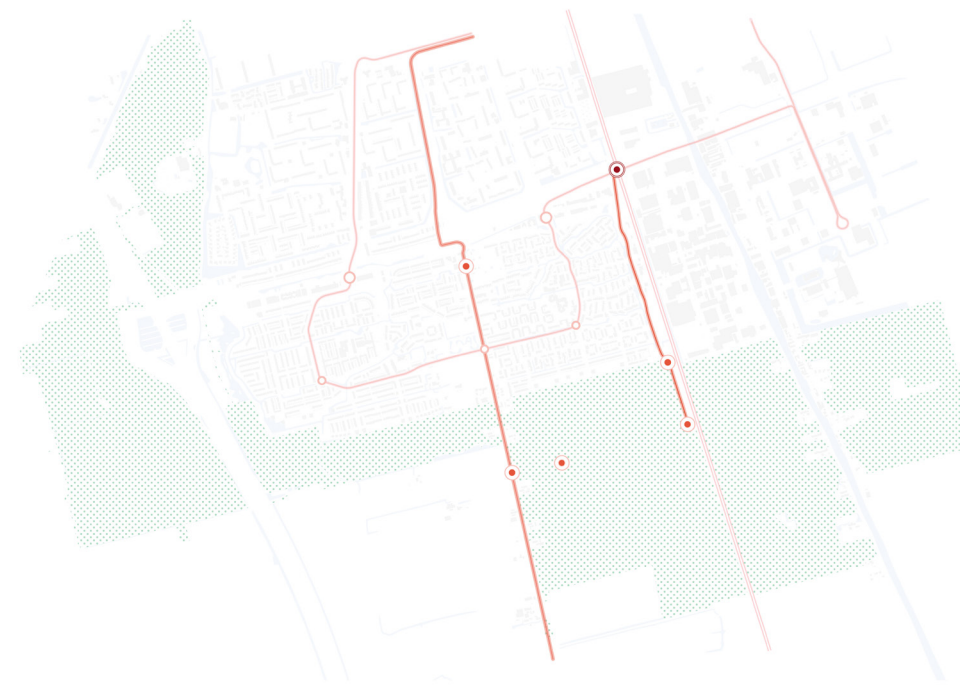
Abtswoudse Bos



Abtswoudse Bos | Design concepts



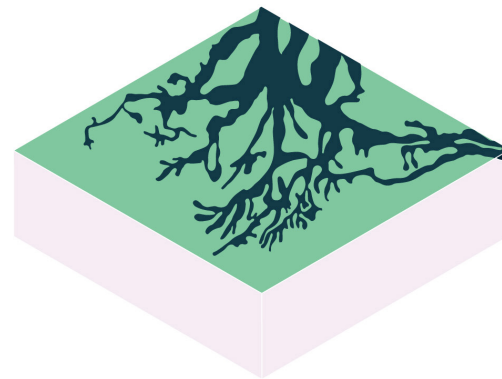
Soften the transition



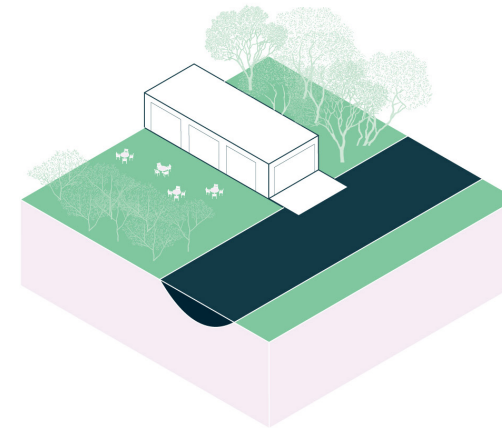
Increase program

Abtswoudse Bos | Interventions

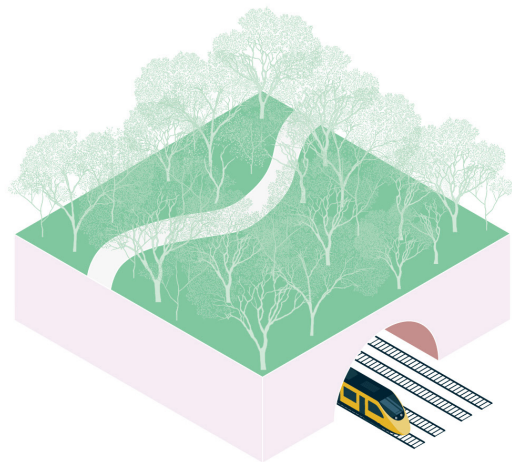
Creek



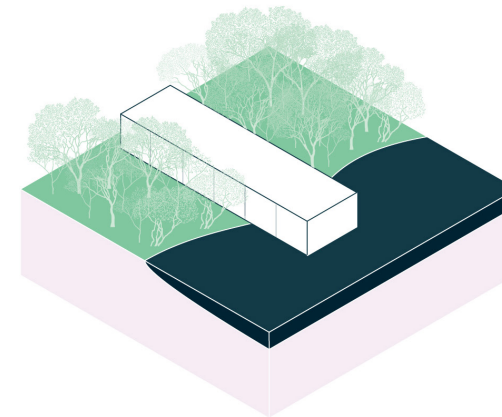
Café & Canoe rental



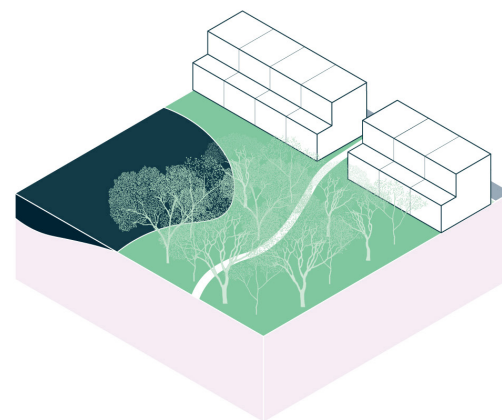
Underground train track



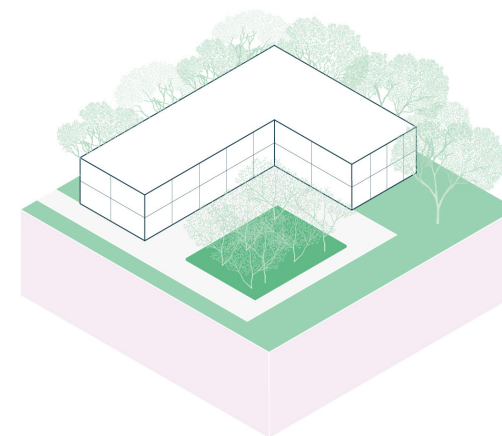
Staatsbosbeheer center & office



City edge



High school

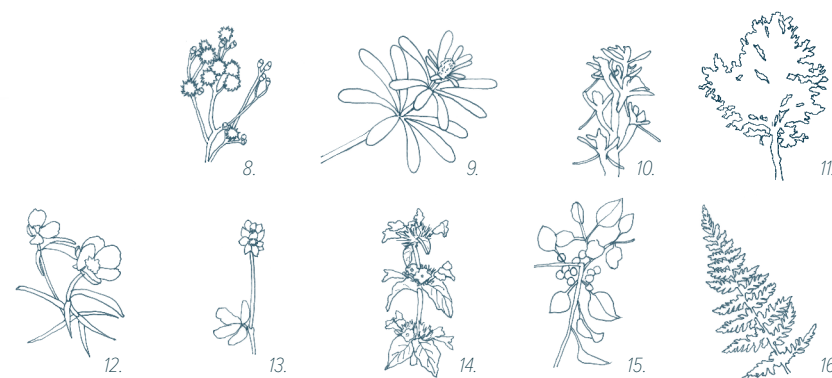
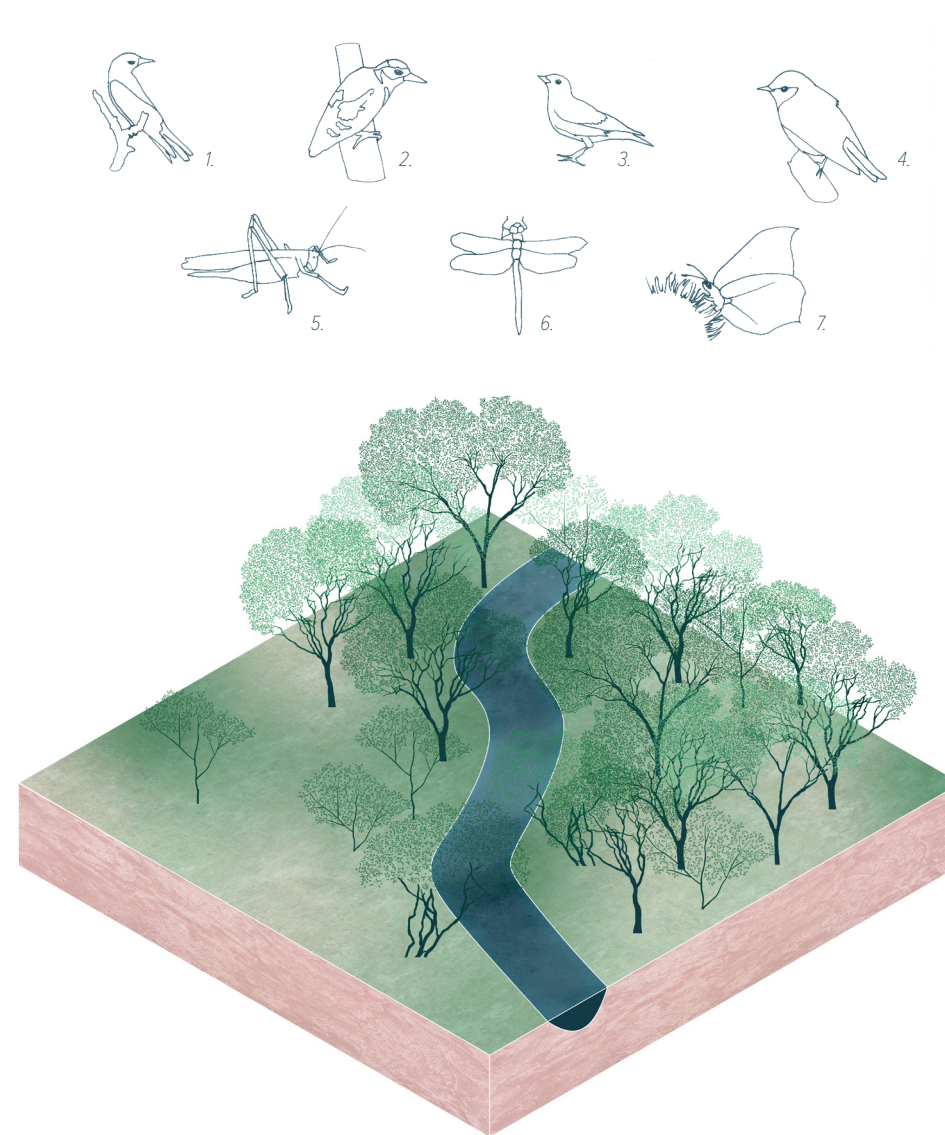


Abtswoudse Bos | Vision



Abtswoudse Bos | Clay forest

1. Golden oriole
2. Lesser spotted woodpecker
3. Woodlark
4. Wood wabler
5. Grasshopper
6. Dragonfly
7. Common brimstone
8. Field thistle
9. Cleavers
10. Fen orchid
11. Common alder
12. Greenland buttercup
13. Muskroot
14. Wild basil
15. European buckthorn
16. Brittle bladder fern





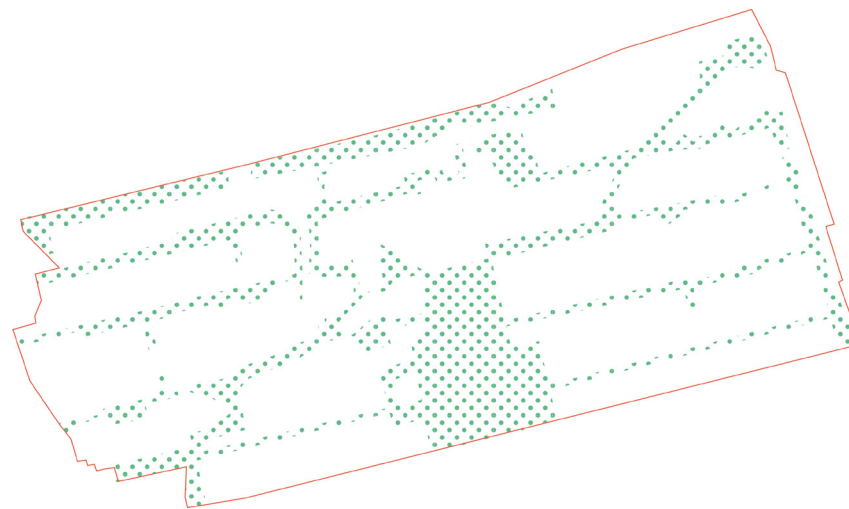
Collage of the Staatsbosbeheer centre in the Abtswoudse Bos. Source: Architecture for London (z.d). Image altered by author.

Abtswoudse Bos | Soft transition





What elements of the woonerf could be used to reconnect people to the natural system of Midden-Delfland?



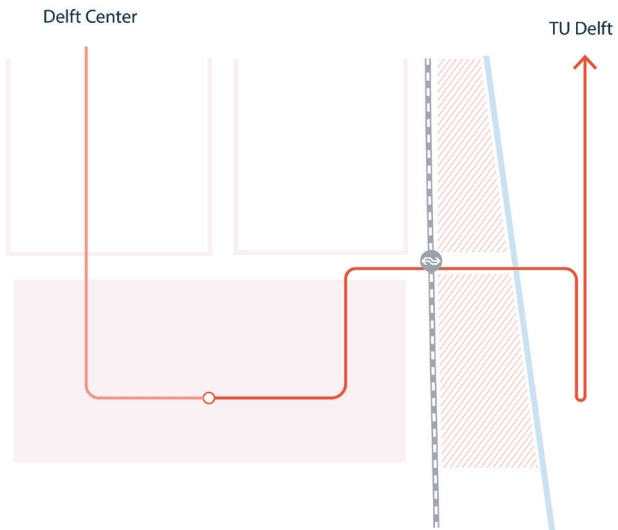
Neighbourhood Garden

Tanthof

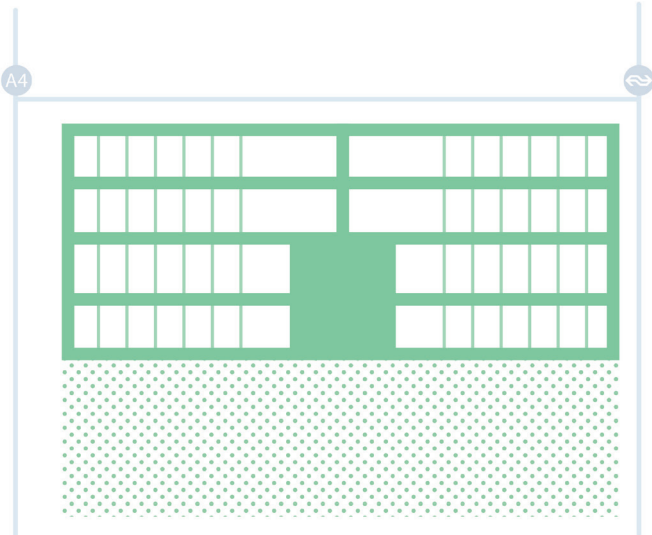


Tanthof | Design principles

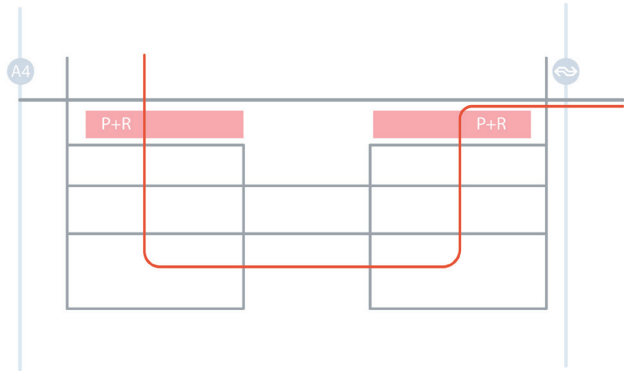
Improve public transport



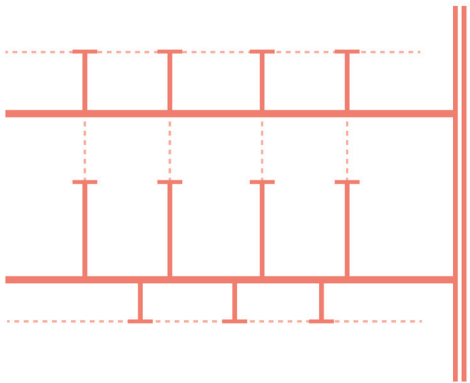
Green network



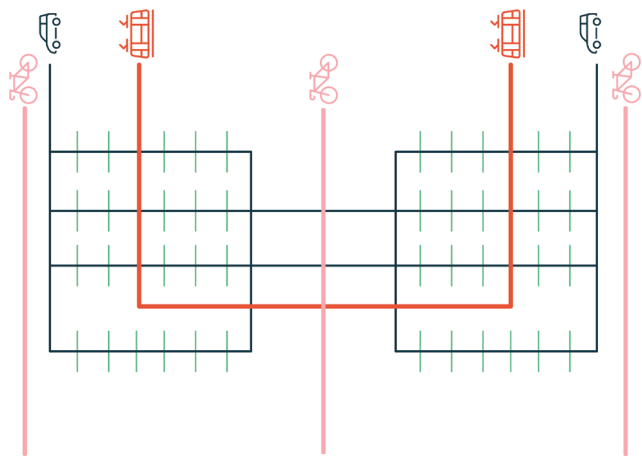
Create parking hubs



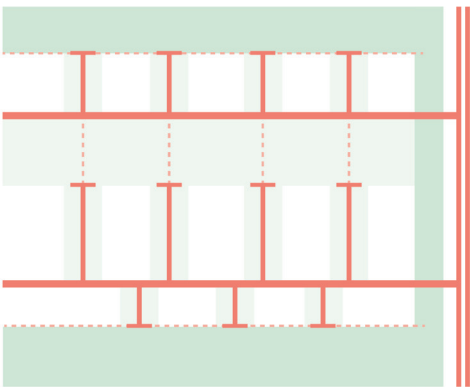
Limit the car



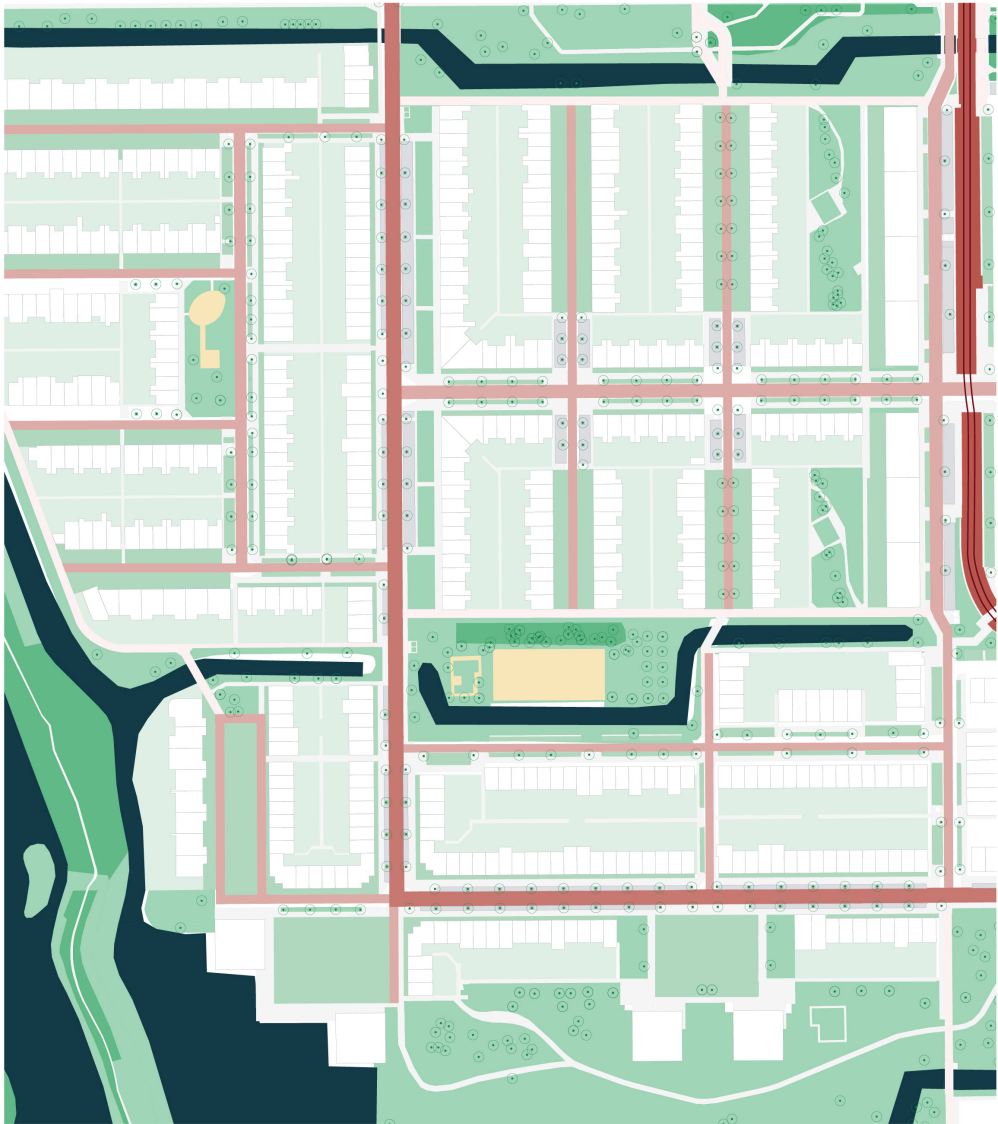
Prioritise slow traffic



Depave streets



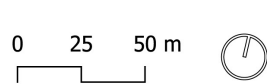
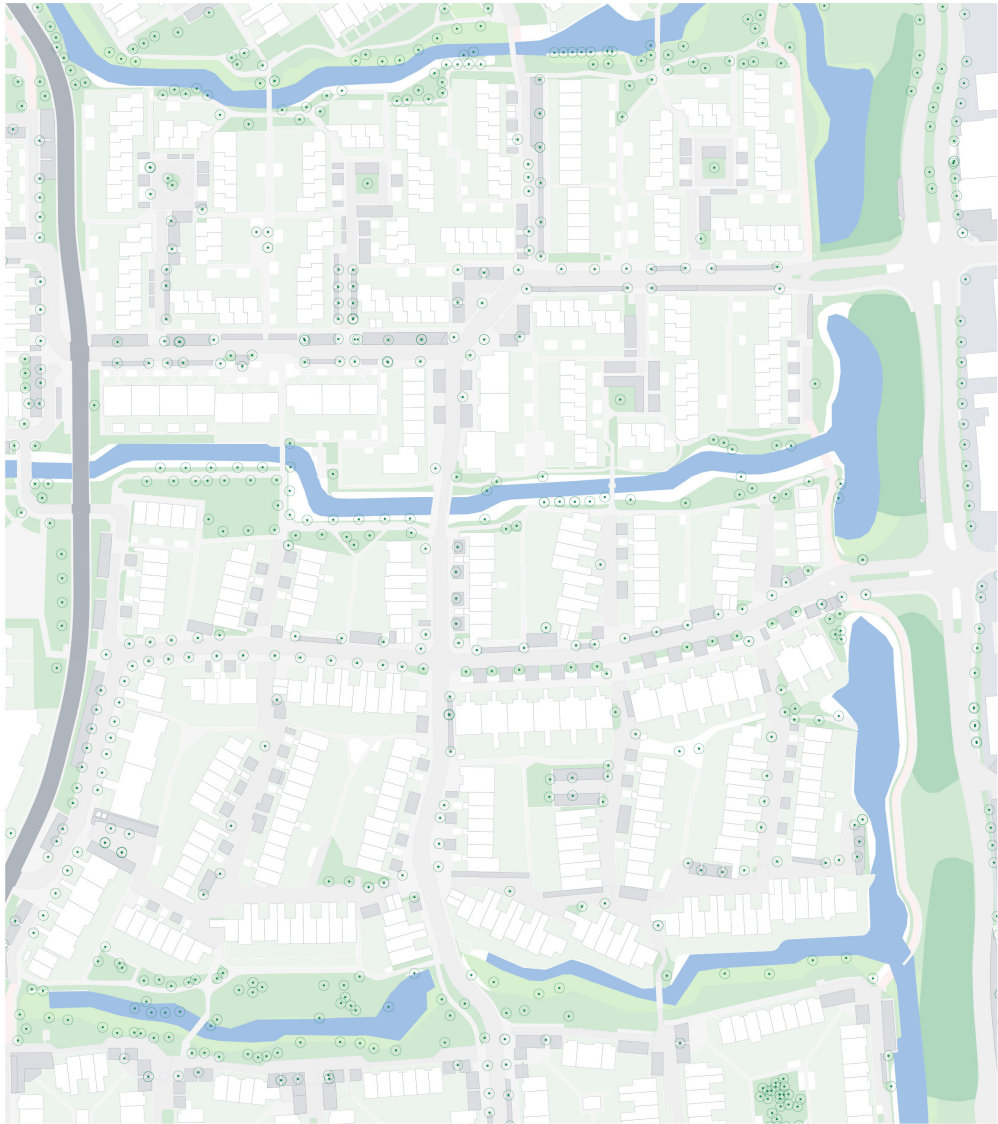
Tanthof | Block West



0 25 50 m

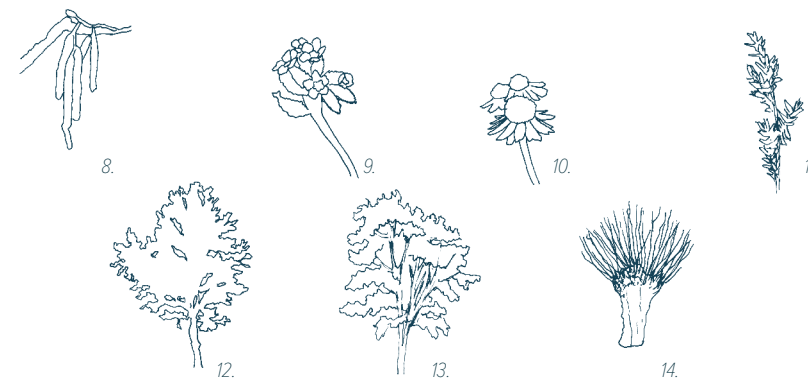
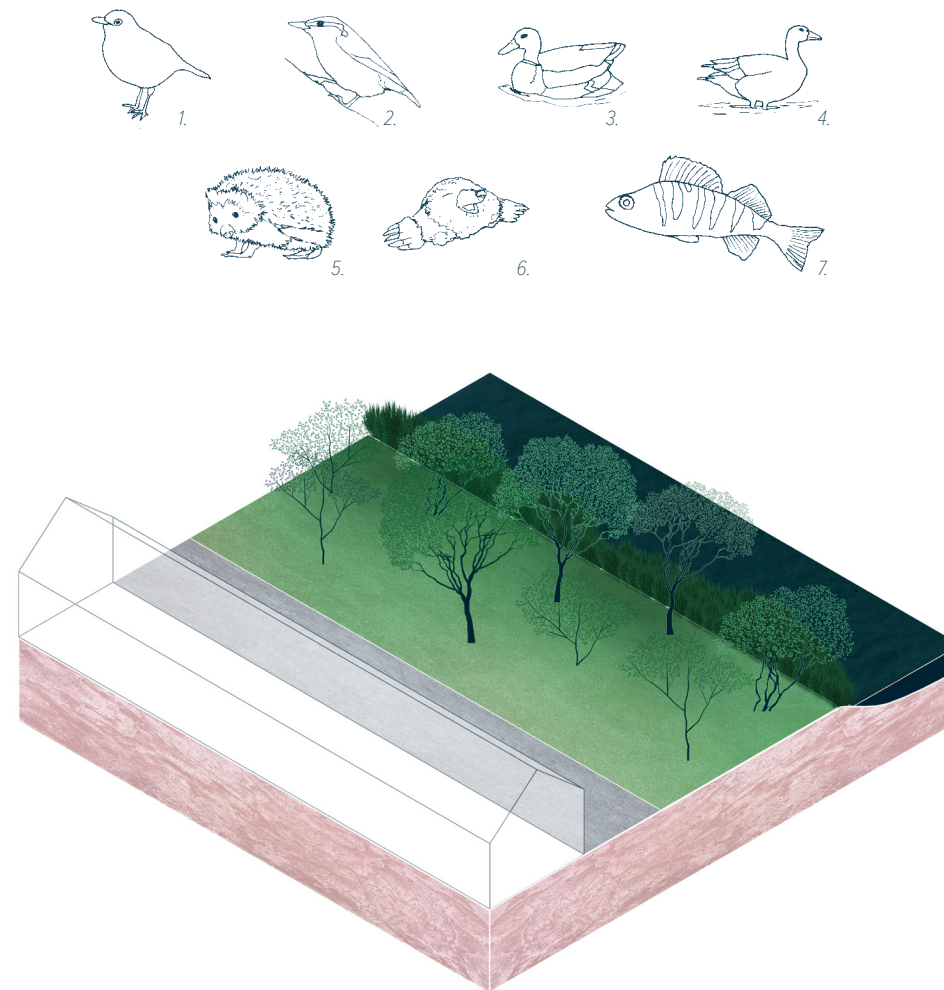


Tanthof | Block East



Tanthof | Green zone

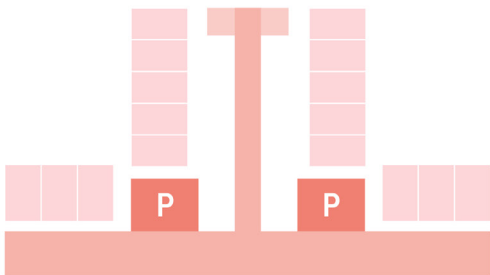
1. Blackbird
2. Nuthatch
3. Mallard
4. Gray goose
5. Hedgehog
6. Mole
7. Perch
8. Hazel
9. Forget-me-nots
10. Chamomile
11. Elongated sedge
12. Common alder
13. Elm
14. Willow



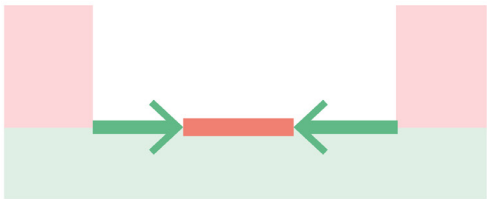


Woonerf | Design principles

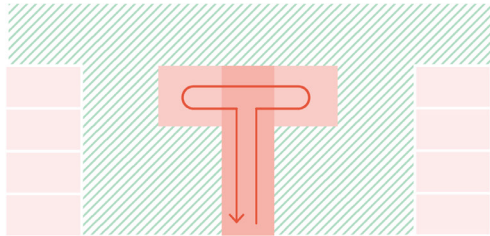
Service space at infra nodes



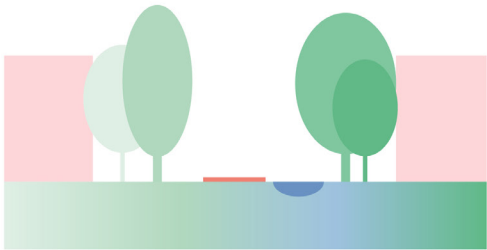
Minimize paved surface



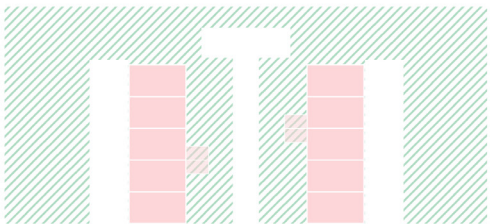
Turning spot at the end of the woonerf



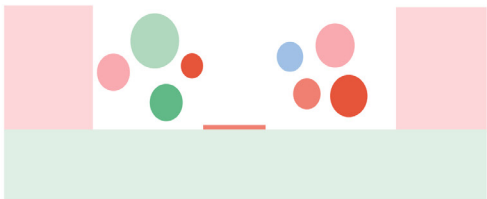
Variety in habitat: wet-dry



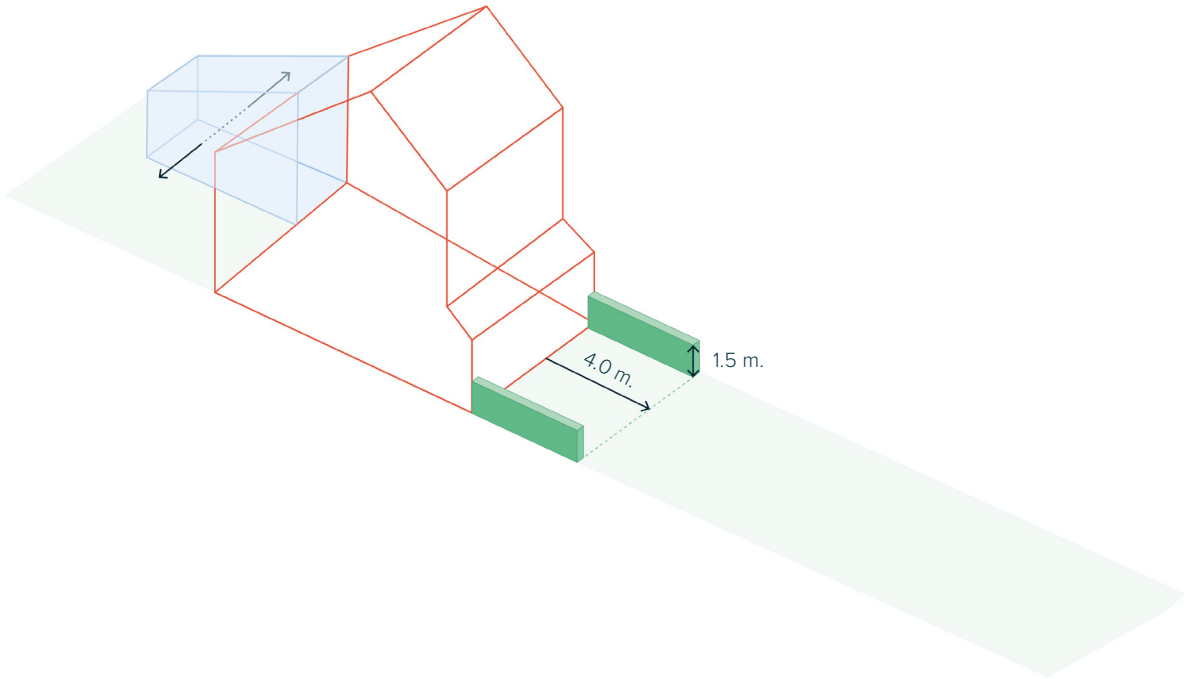
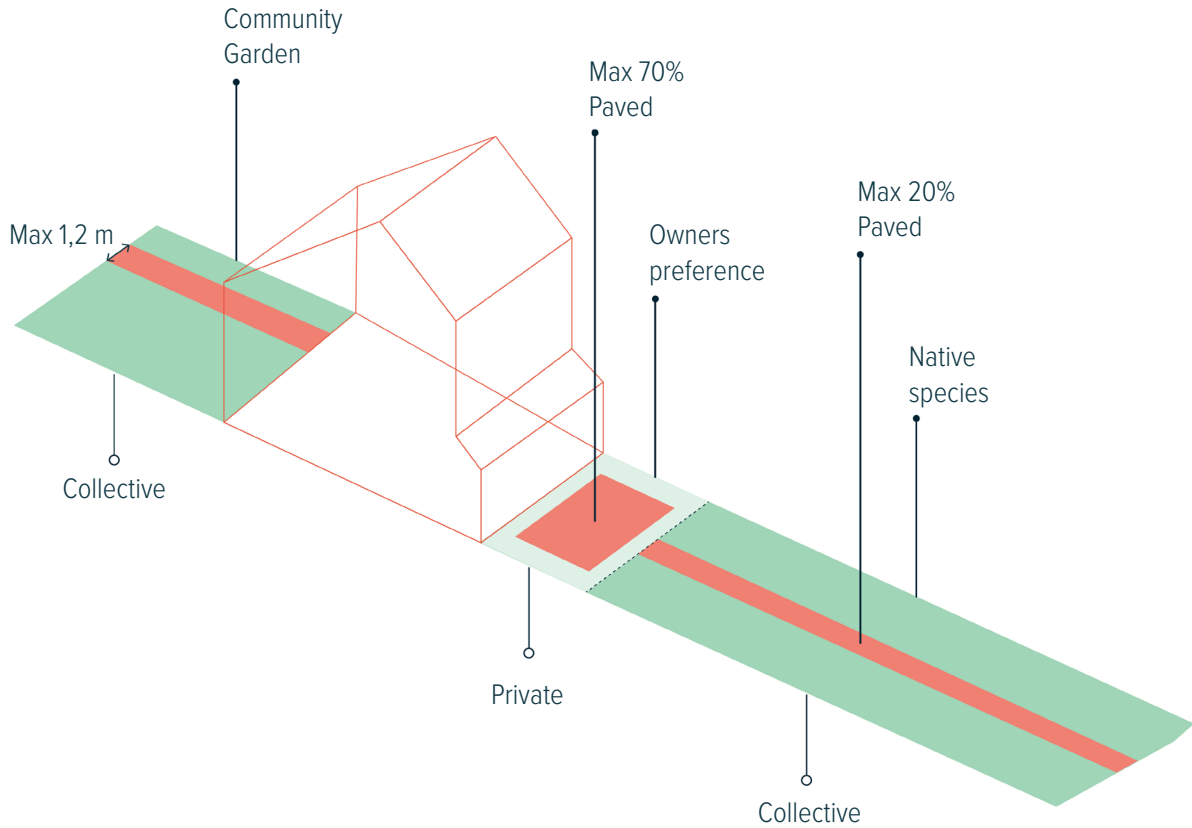
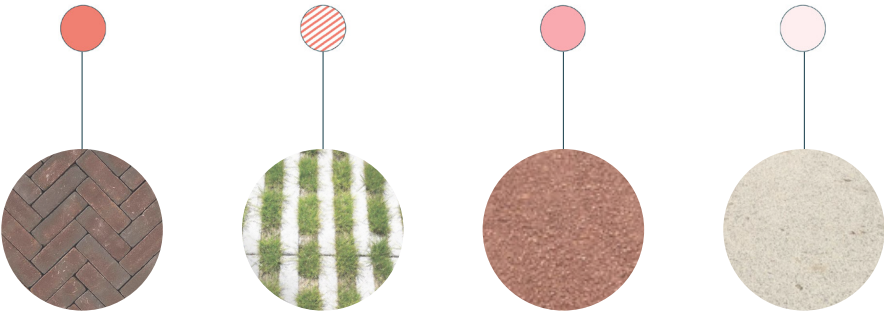
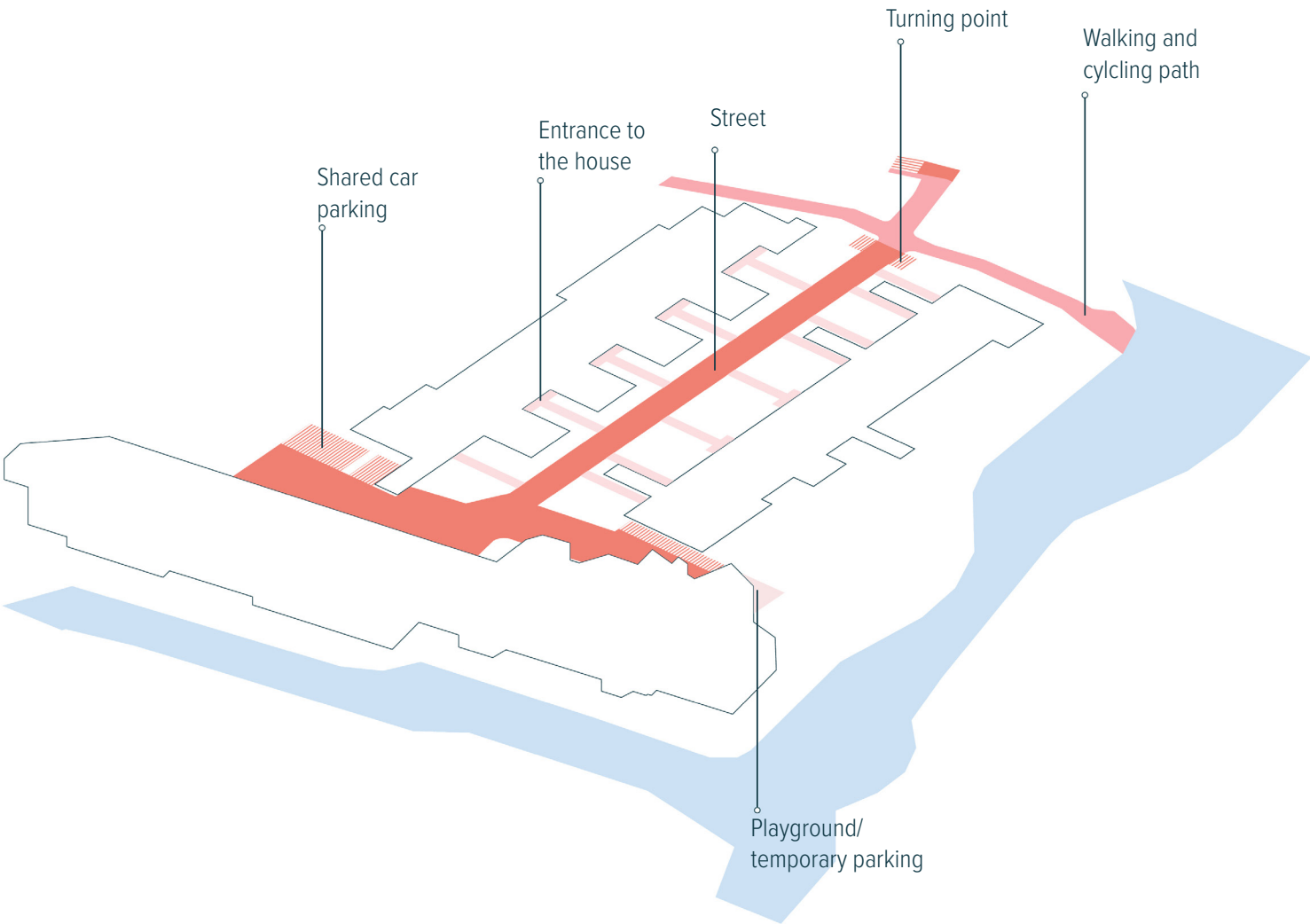
Community space over private space



Composition of the garden adapts to the composition of the users

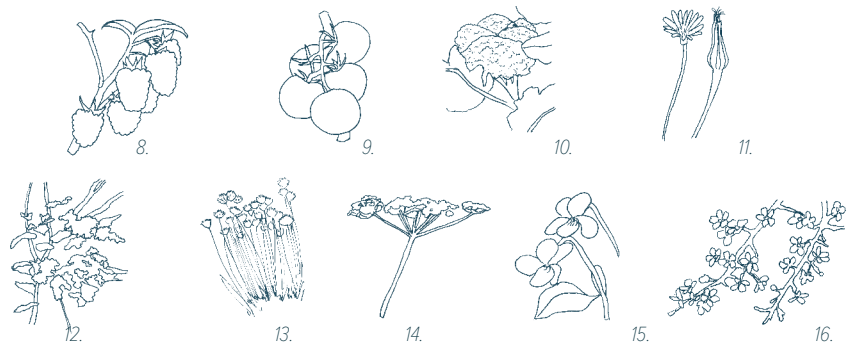
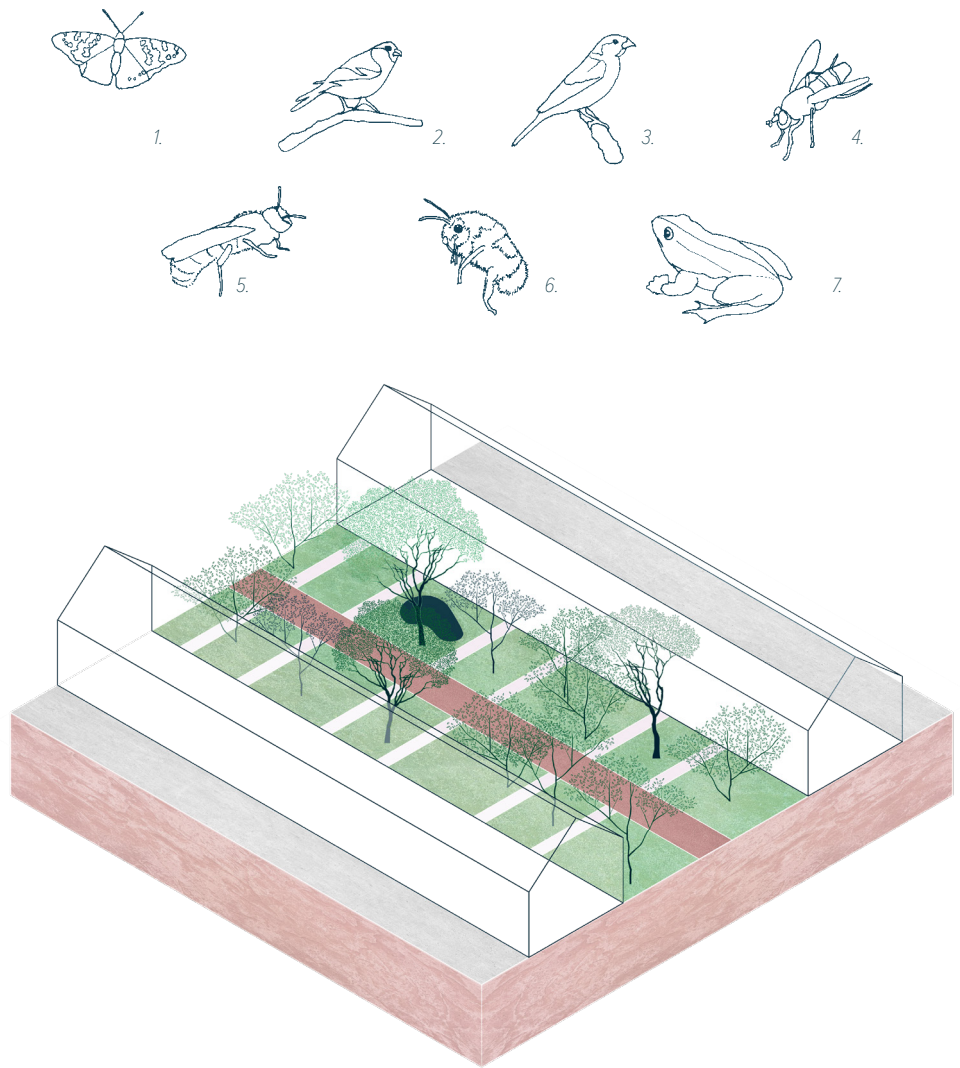


Woonerf | Design rules

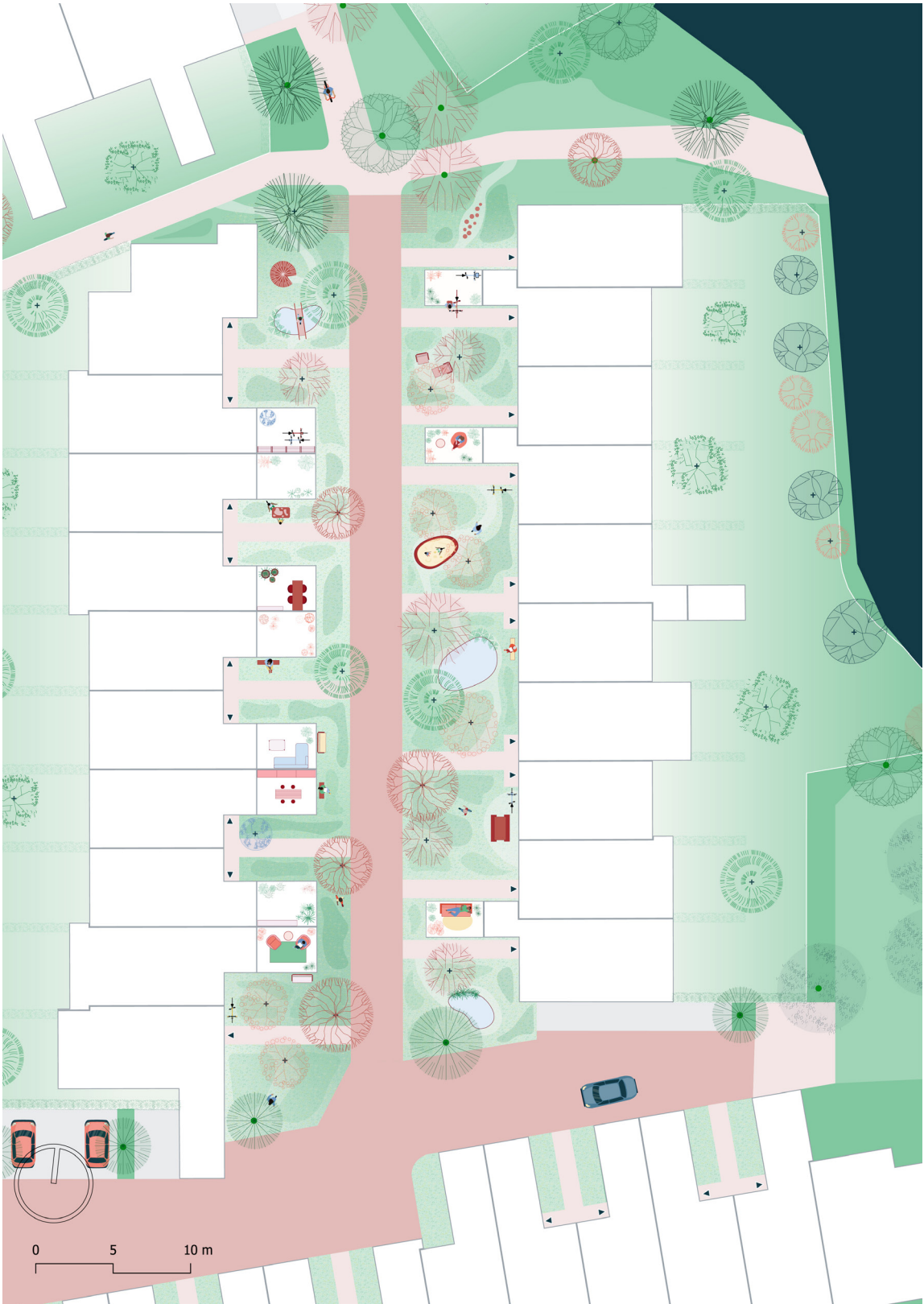


Woonerf | Community garden

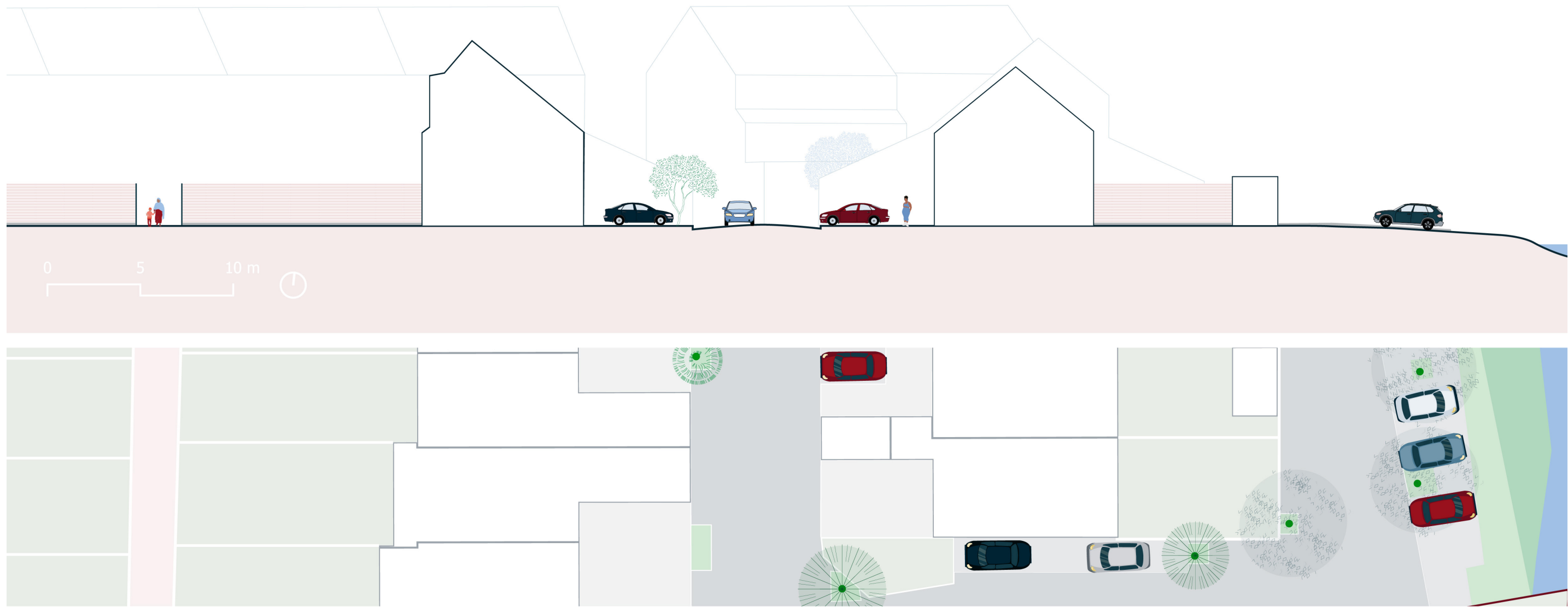
- 1. Thistle butterfly
- 2. Bullfinch
- 3. House sparrow
- 4. Hoverfly
- 5. Solitary bee
- 6. Bumblebee
- 7. Common water frog
- 8. Raspberry
- 9. Tomato
- 10. Broccoli
- 11. Purple salsify
- 12. Hawthorn
- 13. Chives
- 14. Parsnip
- 15. Common violet
- 16. Blackthorn



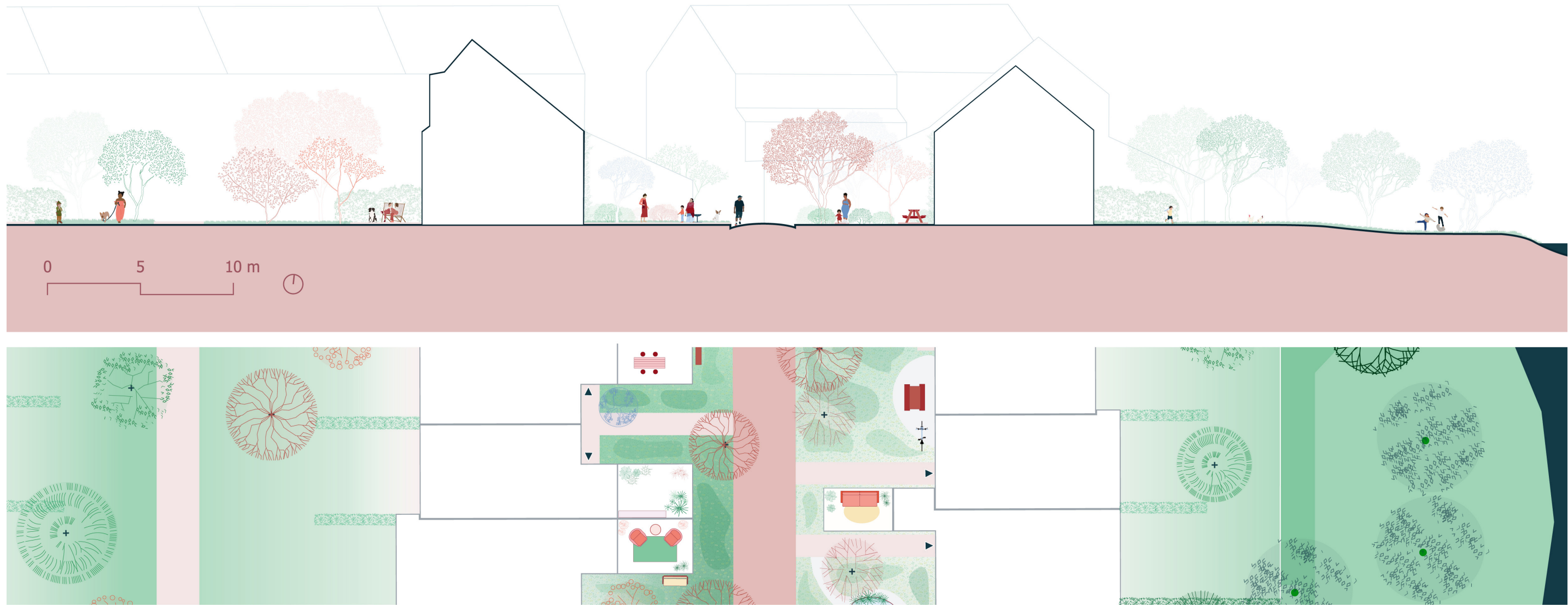
Woonerf | Wielewaalstraat



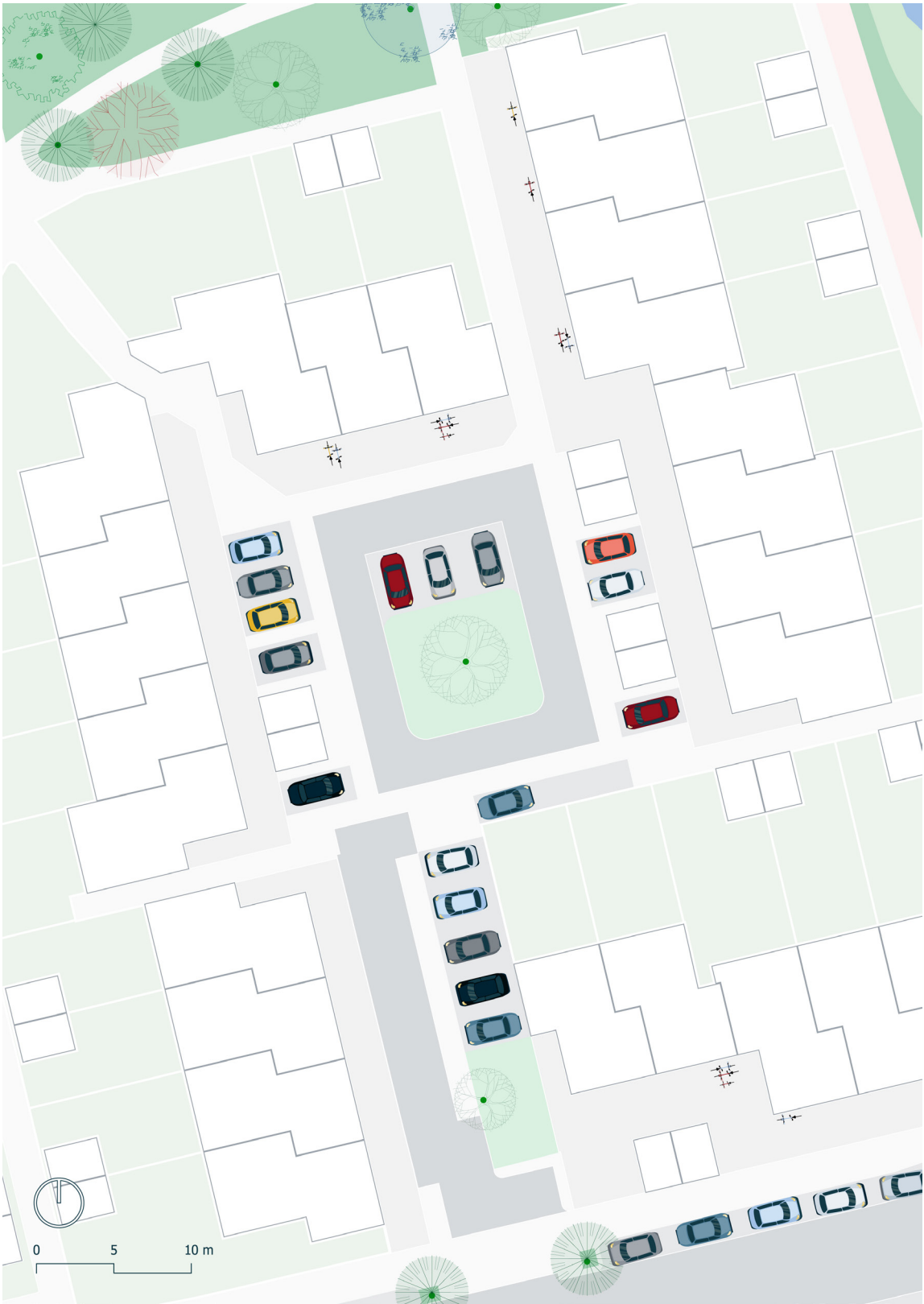
Woonerf | Wielewaalstraat



Woonerf | Wielewaalstraat



Woonerf | Eekhoornhof



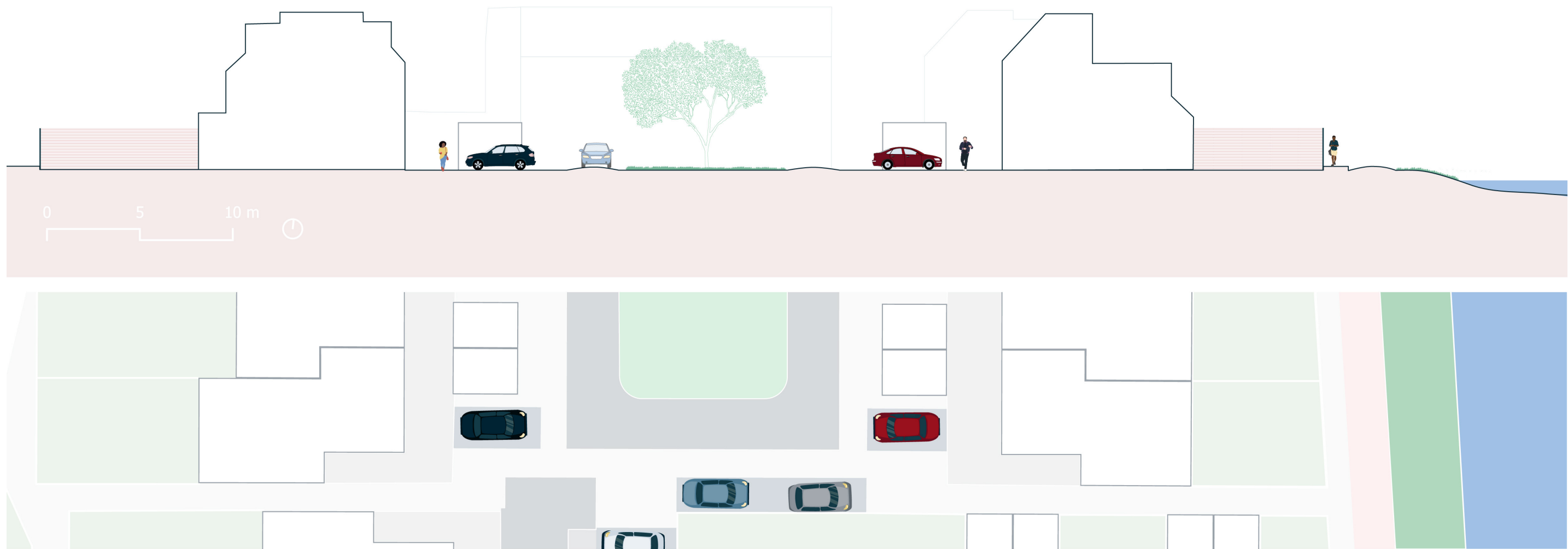
Woonerf | Eekhoornhof

Clara leaves her house after a tumultuous morning. Her mom is sick so she had to find a babysitter before she went off to work.

As a single mom of two toddlers, she is glad to talk to an adult every now and then. As she walks to the car, she notices her neighbour quickly jumping into his car -EarPods in.

She waits for him to drive away and then starts her car. The promise of comfort and ease betrays her when she waits in yet another traffic jam. She arrives 10 minutes late.

Around lunchtime, the new babysitter sends her a picture of the kids using her iPad, sitting on the lounge in their backyard. "At least I got them out of the house" she texts.



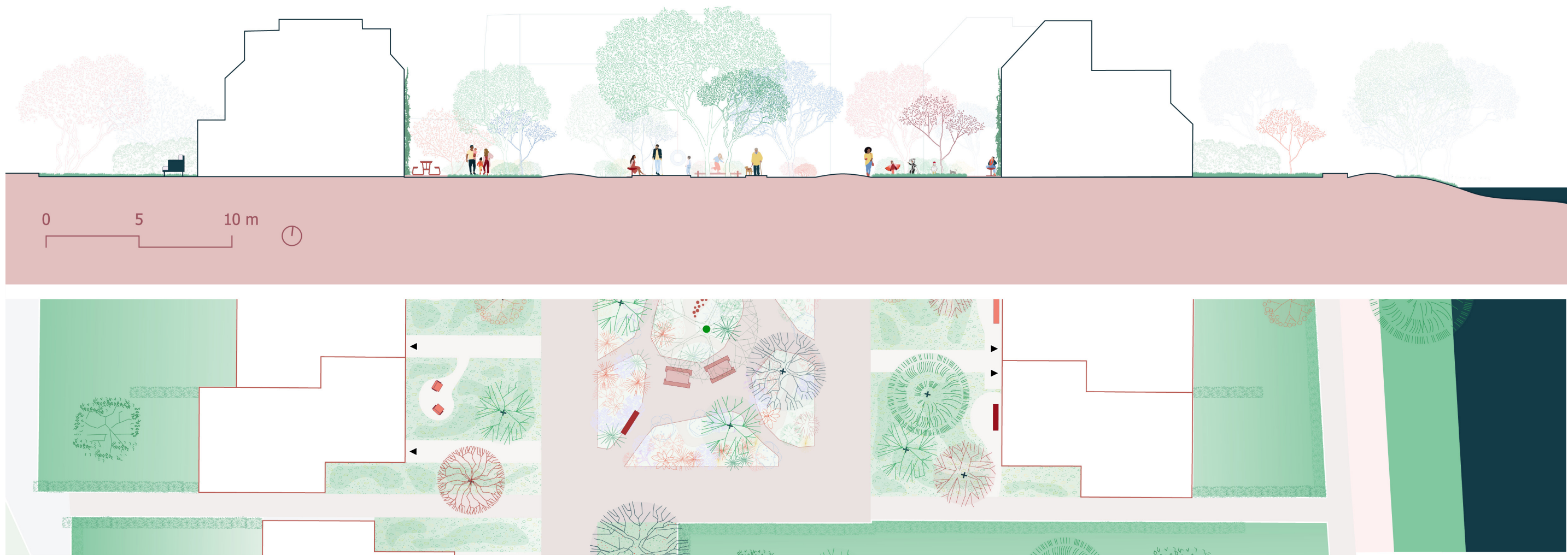
Woonerf | Eekhoornhof

Clara has found a new babysitter. It turned out that there are a lot of lonely, retired people in her neighbourhood.

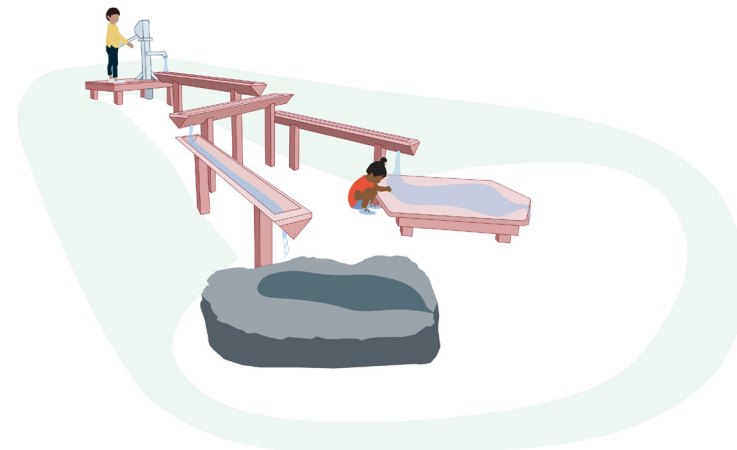
She kisses her kids goodbye, and jumps onto her bike. Her work is just a 15 minute ride, as she avoids the traffic jams .

At the end of the day she picks her kids up at Suzie's, who lives across the street. The elderly woman used to be very lonely, but now she and Clara have a weekly coffee.

The courtyard is a perfect place to play for those little ones, they don't want to stay inside any more. Clara's world has also grown over the year, she can always reach out to her neighbours.



Woonerf | Playing nature



Waterpump



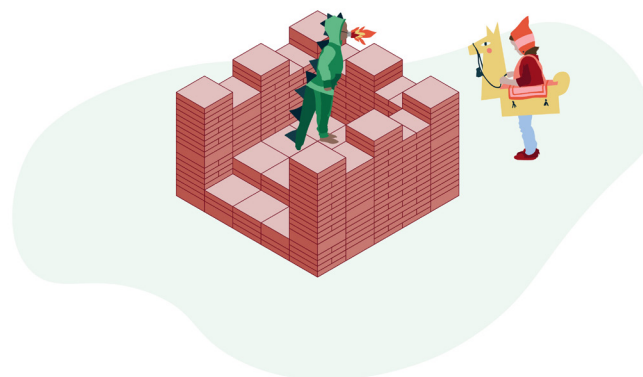
Sandbox



Tree trunks



Self-made hut



Eco-Cathedral



Play-nature

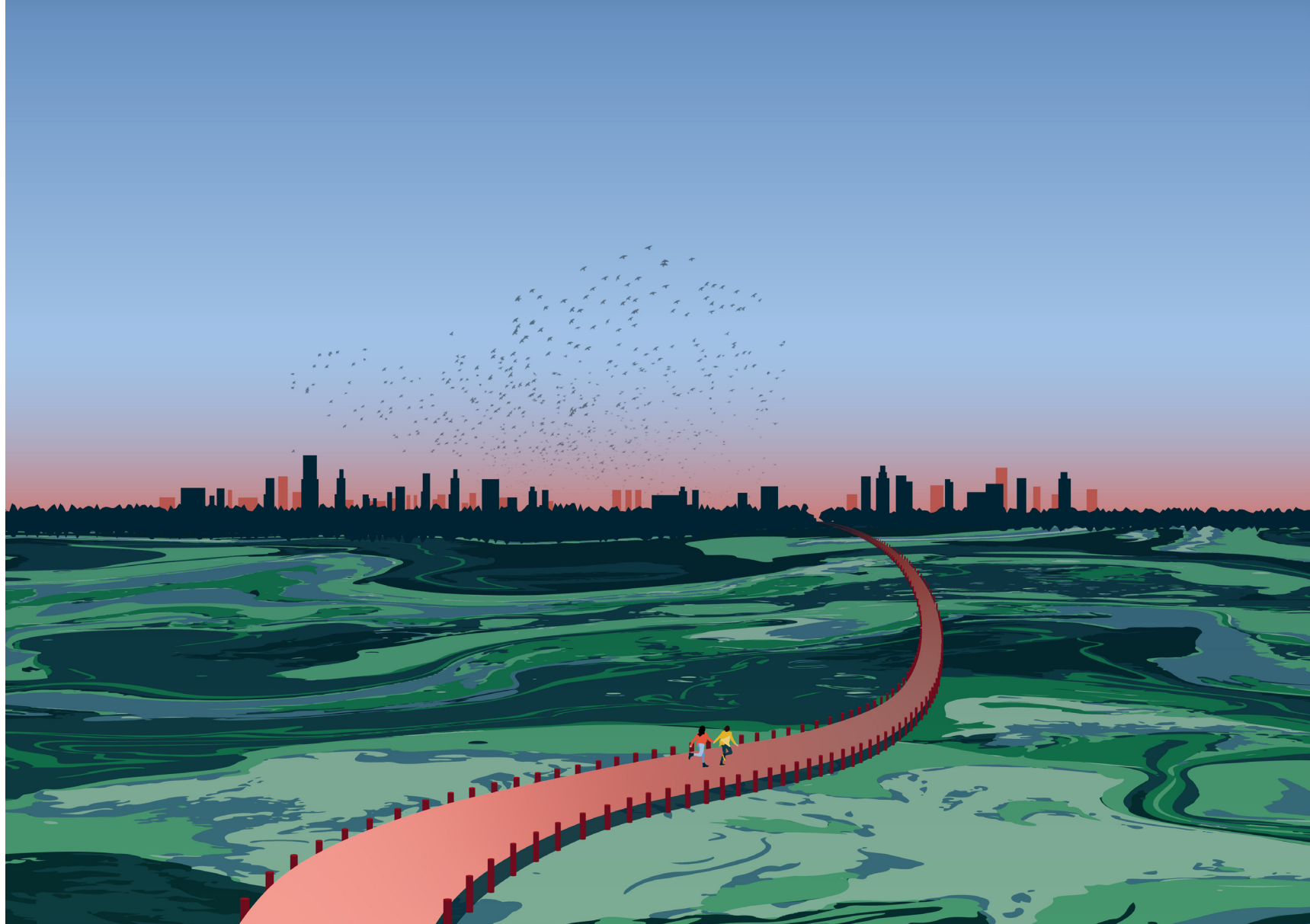








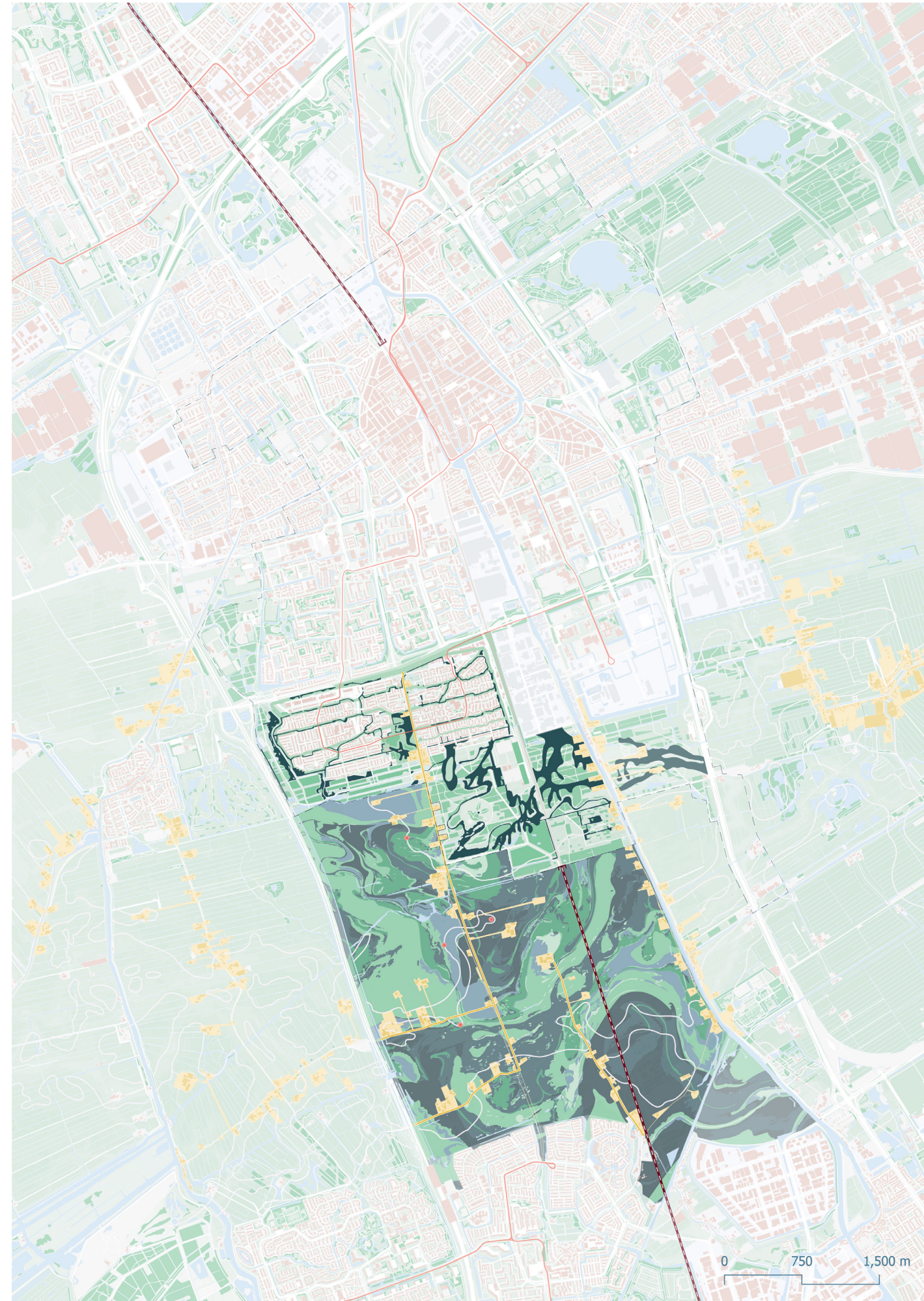




Conclusion

How can urban design of the woonerf type in Tanthof contribute to reconnecting people to the natural landscape system of Midden-Delfland, by facilitating meaningful gardens of responsibility?

Conclusion | Overview



Delft | Green development

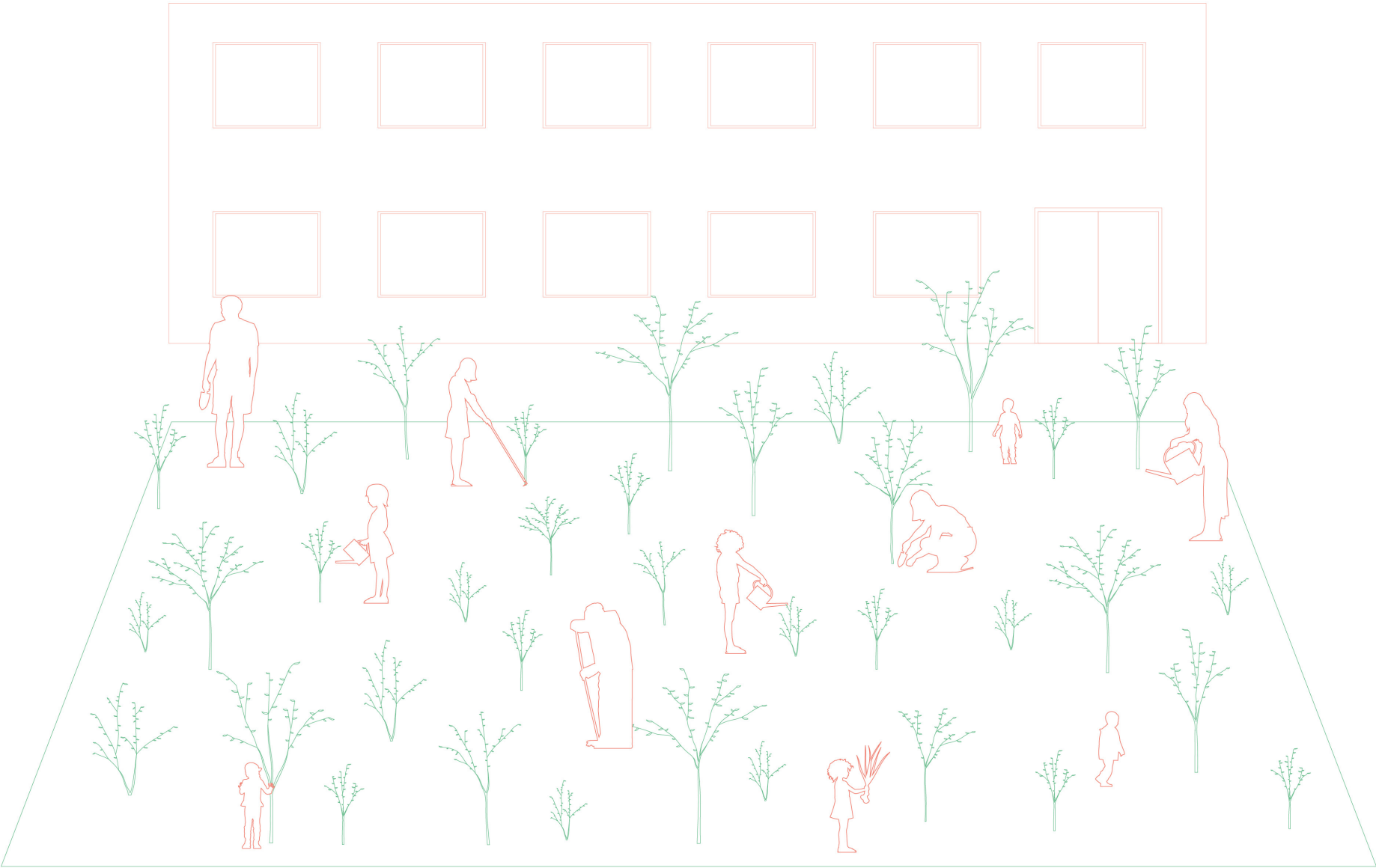
- Soft shores
- East-West connection
- Green axis TU Campus
- Add program

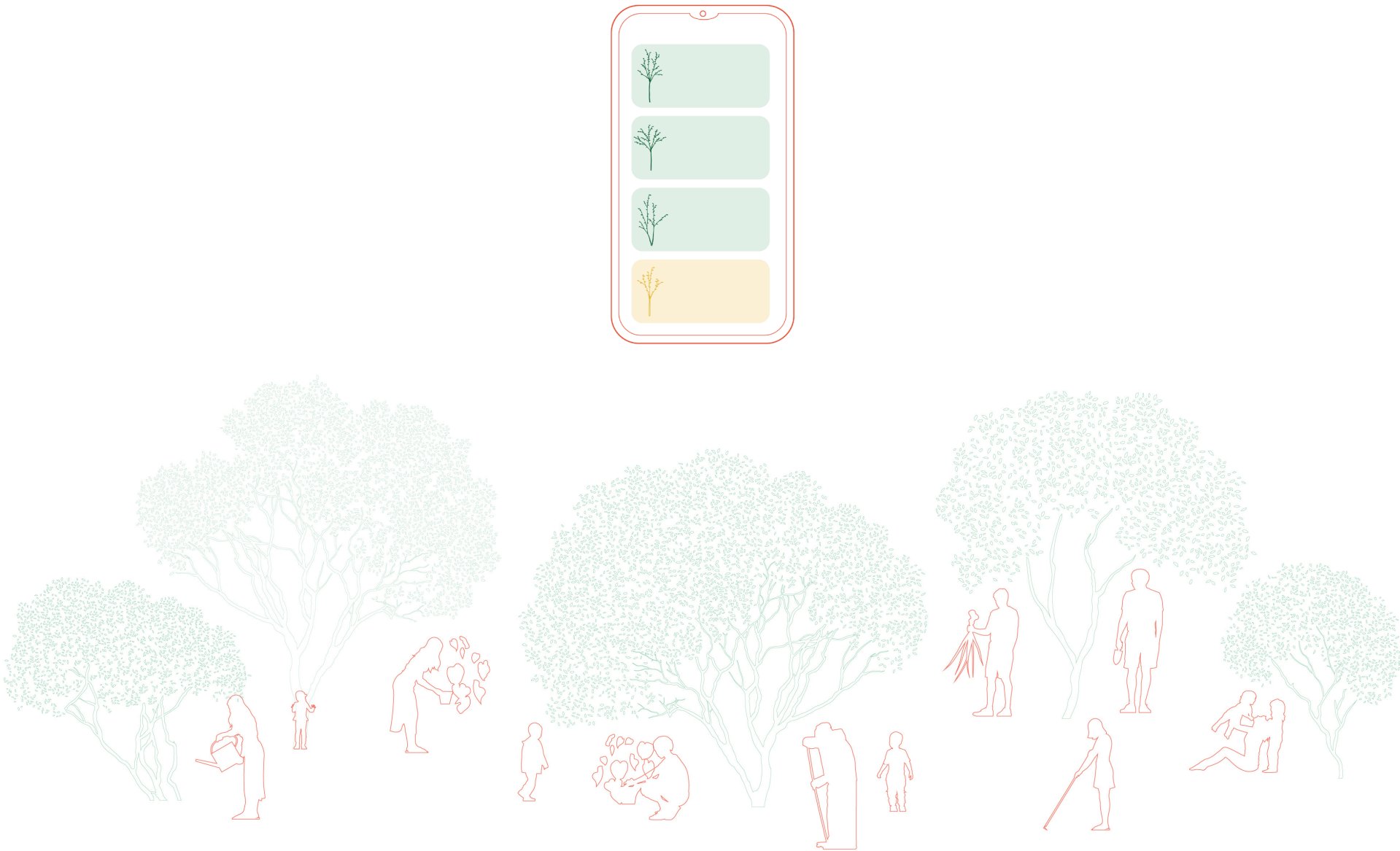


Region I Nature reserve

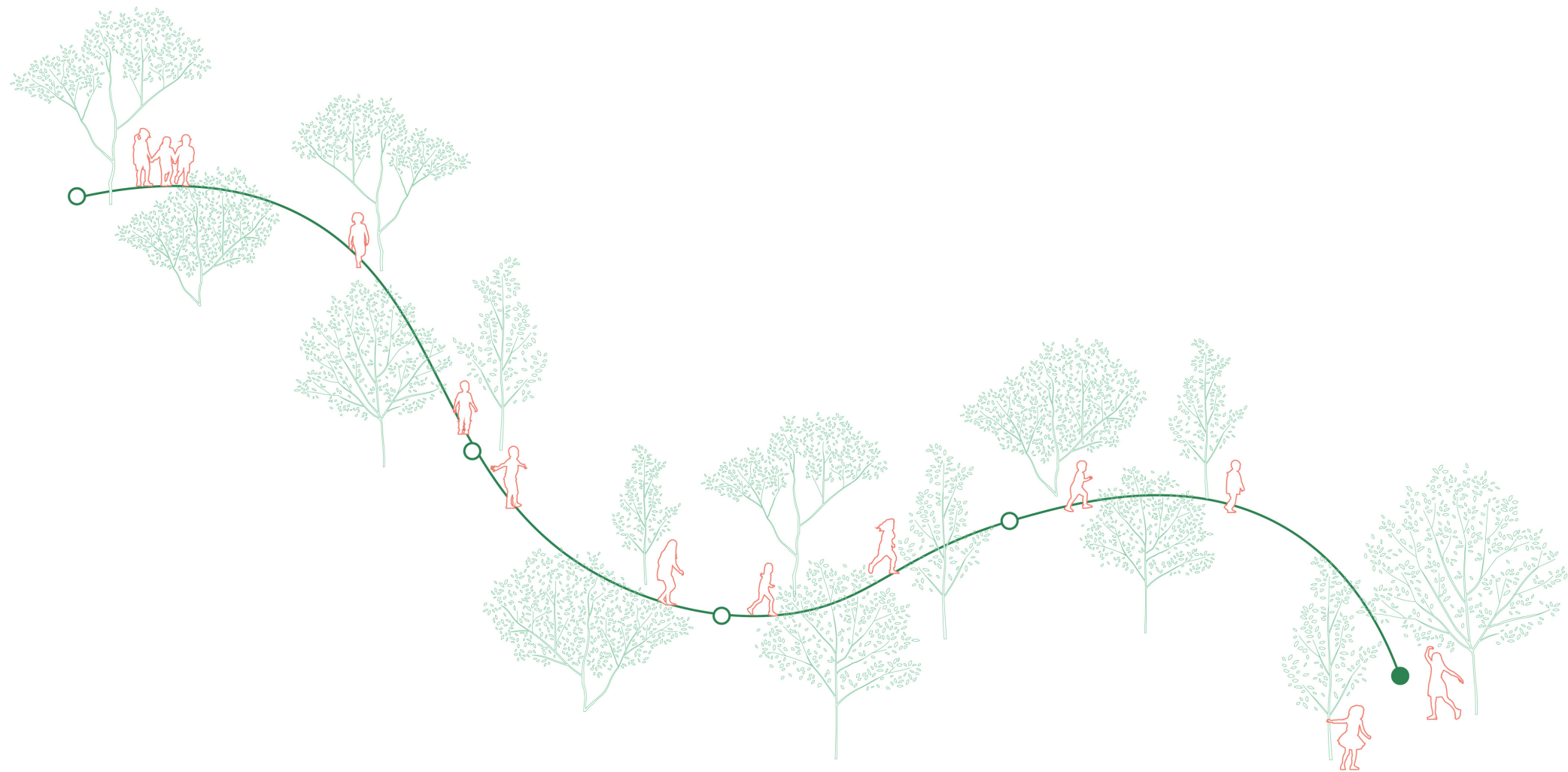








National | Staatsbosbeheer events



Reflection

Project dilemma: pragmatic / radical?

Methods

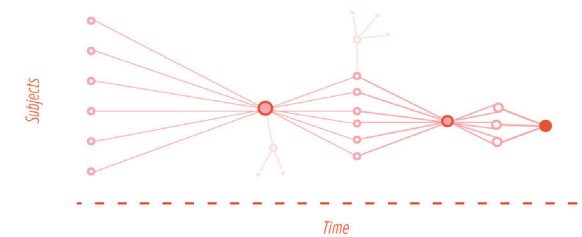
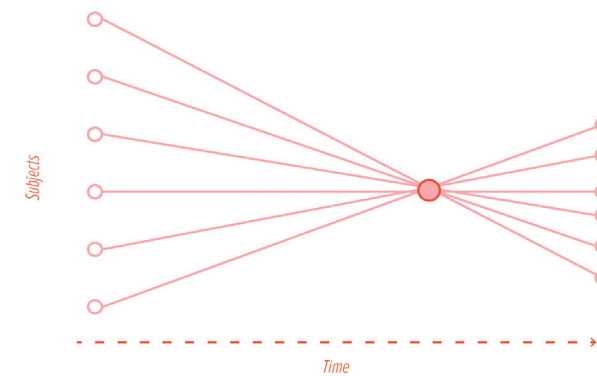
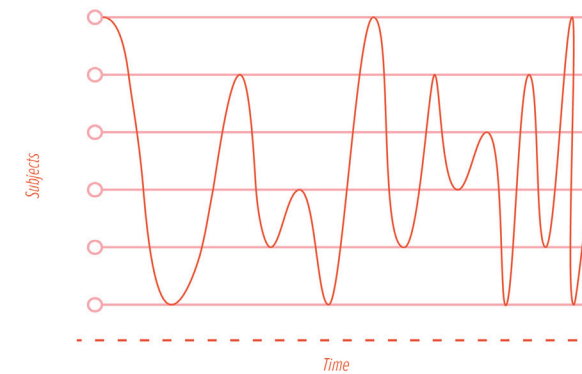
- Peer tutoring
- Using art in research

Process

- Associative thinking

Scientific relevance

- Scenario thinking
- Anthropology
- Challenging the root of urban design





GARDENS OF RESPONSIBILITY

Urban Ecology & Ecocities
P5 22-09-22

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Art-based Research

Art-based research uses artistic forms and expressions to explore, understand, represent, and even challenge human experiences.

Qualitative research

It offers researchers a pathway to understand existing and emerging social phenomena differently.

Families	Research about art	Art as research	Art in research
Definition	Investigates art-related topics without artistically shaping the object or installation under study, or without necessarily (re)creating a material or bodily reality to understand the process of art making itself.	Artist-researchers aim to gain a deeper understanding of the potential of art in changing personal experiences or environmental circumstances	Art is actively applied by participants and/or artist-researchers as a creative process in one or more phases of a research process studying social and behavioral science phenomena.
Nature	Both qualitative and quantitative inquiry	Artistic inquiry	Qualitative inquiry
Primary identity of the artist-researcher	Researcher	Artist	Researcher
The role of art	Art as a content area	Art as a way of inquiry	Art as a method
The relationship between art and research	Qualitative (or quantitative) inquiry into artistic topics	Research methods supporting artistic inquiry	Artistic forms supporting qualitative inquiry
Perspective of the artist-researcher	Outsider	Insider	Insider
Example	Evaluating an art piece to gain understanding of a particular social context	Architect Jeanne Gang organised workshops with the citizens to design a police station which contributes to a sense of community.	The art component may be used to determine the focus of the research, formulate research questions, generate/collect/analyze data, present findings, respond to the findings, evaluate research, and/or generate meaning and trigger responses from the audience.

Presenters summary of Arts-based Methods in Socially Engaged Research Practice: A Classification Framework (Wang et al., 2017).